



A Weekly Journal of Pharmacy and the Drug-trade.

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TRANSATLANTIC BUSINESS.

THE Publisher desires to inform manufacturers and wholesalers that the issue of *THE CHEMIST AND DRUGGIST* for May 31 will be specially circulated to transatlantic buyers. Canada, the United States, and the West Indies will be thus covered, and, as export business in chemicals, medicines, and similar products with these countries is on the increase, the circulation of May 31 will be a good chance for improving the business of those who advertise in it.

Summary.

THE list of Cricket League fixtures for 1902 is given on p. 539.

XRAYSER suggests ping pong for the Liverpool chemists (p. 613).

AN ORIENTAL ADVERTISING AGENT is suggested for home-use (p. 607).

OUR veterinary expert contributes a helpful article on indigestion in cattle (p. 599).

A PORTRAIT of Dr. Bertram Prentice, of the Royal Technical Institute, Salford, is shown on p. 629.

AT the monthly cinchona-auction supplies were larger than usual, and the bulk sold at steady rates (p. 639).

THE SOCIETY OF PHARMACY OF ANTWERP have published a Formulary, from which selections are given on p. 634.

THE TALK OF THE WEEK in business circles concerns the new Budget proposals. We deal with the matter on p. 614.

MR. P. W. SQUIRE has proved that citrine ointment made by his process keeps well and does not contain free acid (p. 595).

THE SECOND of the series of articles on the Anglo-Indian drug-trade appears on p. 620. Bomhay pharmacies are dealt with.

MR. E. A. ANDREWS, of St. Mary's Hospital, suggests a new process for the preparation of liquid extract of belladonna (p. 608).

NOT MANY CHEMISTS' ASSISTANTS can spend the season at Monte Carlo, but they can read another assistant's experience on p. 619.

THE CHEMISTRY of the celandine poppy has been investigated by Schlotterbeck and Watkins. Their results will be found on p. 612.

PARTICULARS of a congress of pharmacy, which has been held in St. Petersburg, are given on p. 594, and some notes on Russian pharmacy on p. 616.

THE PORTRAITS of thirty-four Australasian pharmacy examiners are given on pp. 624-5, and short biographies of twenty of the examiners on p. 623.

THE novelties which are to be seen at the Photographic Exhibition are noted on p. 630. There are several new daylight-loading devices for films.

THE MEDICAL OFFICER OF HEALTH for Halifax has been experimenting on the quantities of arsenic contained in malt under various conditions (p. 588).

THE ANALYSIS of the contents of the stomach is becoming of great importance in certain diseases. How to conduct the analysis is described on p. 626.

AN abstract of an excellent paper by Mr. John Austen on "Old Sheffield Druggists" is printed on p. 632. Four portraits of old-time druggists are given.

A REMEDY against the substitution which is said to be practised by United States pharmacists in the sale of proprietary medicines is suggested on p. 615.

THE results of the April examinations in Edinburgh are on p. 597, whilst the names of the successful candidates at the Irish examinations will be found on p. 590.

DR. AUGUSTINE HENRY gave a lecture on Chinese drugs to the Pharmaceutical Society, and Mr. Holmes gave the meeting additional information on the same subject (p. 595).

WHY buy medicines or waste money on doctors when you have cures for all diseases in your own gardens? asks a writer to the lay Press. The gist of his remarks appears on p. 601.

LEGAL MATTERS concerning pharmacy have not been much to the fore in the Courts during the week, but a victory for the Revenue authorities in a stamp case is reported on p. 603.

THIS NUMBER contains many items about the mortar: its evolution is told by Fred Reynolds, its reminiscences by William Smart (p. 627), whilst on p. 612 the newest form of that utensil is shown.

OUR TOWN TRAVELLER has visited the York Glass Company, Messrs. Wyleys (Limited), Luce's Eau-de-Cologne Company, the Marvel Company, and Messrs. F. Schutze & Co. What he saw is described on pp. 606-7.

BUSINESS in drugs and chemicals is dull, but changes in value are few, the principal being a reduction in codeine. Menthol is firmer in Japan, cod-liver oil is unchanged, and quinine is inactive. The drug-sales, at which heavy supplies were offered, are reported on p. 639.

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Brevities.

Mr. Robert Parry, chemist, has been elected on the Bettws-y-Oed District Council.

Mr. D. Stephens, chemist, has been re-elected a member of the Llandilo District Council.

Messrs. Hamor, Lockwood & Co. (Limited), chemical-manufacturers, Manchester, have entered upon a voluntary winding-up of the concern.

Six dogs belonging to farmers and others in the Brynna district have been found dead within the past fortnight, the death in each case unmistakably pointing to poisoning.

At Greenwich Police Court last week a lad of 14, named Robinson, was remanded in custody on a charge of embezzling 7s. 10d., belonging to his employer, Mr. John Butler Davis, chemist, Montpelier Road, Blackheath.

Fred Robinson, for falsely obtaining commission on bogus advertisements which he alleged were from Mr. F. W. Gates, chemist and druggist, and other tradesmen, has been sent to gaol for two months by the Manchester Magistrates.

On April 14, a few friends met in the Black Horse Hotel, Redditch, and presented Mr. Dundas Simpson, chemist and druggist, with a silver-mounted walking-stick, with inscription (Mrs. Simpson being presented with an umbrella), on their leaving Redditch for the North.

Micah Morris, farmer, of Calbourne, Newbarn, was fined 2s. 6d. and 15s. costs by the Isle of Wight County Magistrates on April 12 for placing poisonous grain on the land. The evidence was to the effect that defendant had sown a quantity of barley recently soaked in poison, and that a pheasant and some pigeons had been picked up dead in the field. The defendant pleaded he did it to destroy the rooks, which committed great havoc with his crops.

Arsenic in Malt.

Mr. Thomas Fairley, the Leeds city analyst, in a report recently presented to the Sanitary Committee of that town, stated that out of seventy samples of beer analysed by him nine were found to contain arsenic in minute quantities. In the course of his investigations he had found that wherever beer was exposed in a room where there was dust or soot traces of arsenic were to be found. Owing to the action of beer on glass it was difficult also to get bottles which would hold the liquid any length of time without it being contaminated by the presence of arsenic.

At a sitting of the Royal Commission on Arsenical Poisoning at the Westminster Palace Hotel on April 11, Lord Kelvin presiding, Dr. Neech, medical officer for Halifax, said that, in his opinion, not more than $\frac{1}{100}$ gr. of arsenic per gal. should be allowed in beer. In giving details of experiments which he had carried out, he said that, using ordinary gas-coke, with the malt in very wet condition, unbrushed malt was found to contain $\frac{1}{32}$ gr. of arsenic per lb., and brushed malt $\frac{1}{64}$ gr. In an experiment with dry malt there was $\frac{1}{160}$ gr. of arsenic in unbrushed, and $\frac{1}{320}$ gr. in brushed malt. Two experiments were conducted with arsenical coke as fuel. With wet malt there was $\frac{1}{8}$ gr. of arsenic per lb. in unbrushed malt, and $\frac{1}{16}$ gr. in that which was brushed. With dry malt the figures were $\frac{1}{16}$ and $\frac{1}{32}$. No steps were taken to see that the barley was free from arsenic.

Contracts.

The Cambridge Public Health Committee has appointed Mr. E. W. Moss, chemist and druggist, to supply drugs, &c., to the local Infectious Diseases Hospital for one year.

Mr. T. Kenny, chemist and druggist, 236 Beverley Road, Hull, has been selected to supply the Sculcoates (Hull) Workhouse with drugs and aerated waters for the next six months.

The Mile End Board of Guardians has accepted the tender (401l. 17s. 8d.) of Messrs. Hodgkinson, Prestons & King, 81 Bishopsgate Street Without, E.C., for the supply of drugs.

The Romford Urban District Council has accepted the tender of Mr. W. J. Bray, chemist and druggist, Romford, for the supply of disinfectants to the town for the ensuing year.

The Holywell Board of Guardians has accepted the tender of Mr. J. Prince, chemist and druggist, Connah's Quay, for the supply of drugs to the workhouse surgery for 12l. 15s.

Mr. Frederic J. Keene, chemist, Market Place, Oldbury, has been selected to supply the Oldbury District Council with carbolic-powder, chloride of lime, sulphuric acid, and roll sulphur for the ensuing year.

The East Ham Urban District Council has accepted the tender of Mr. Knights Dack, chemist, 93 Plashet Grove, East Ham, for the supply of drugs, medicines, chemists' sundries, and disinfectants for the year.

The Local Government Board continues to draw the attention of Boards of Guardians to the advisability of expensive drugs and medicines being provided by contracts with chemists, instead of through the medical officers. The Loughborough Board on April 10 considered the question, but it was decided, before taking any steps in the matter, to ask the Local Government Board what were considered expensive drugs and medicines.

At a meeting of the Yarmouth Board of Guardians on April 15, the Visiting Committee reported that at their meeting a letter was read from the Superintendent of the Apothecaries' Hall objecting to the use made of their price-list. It appears that the list had been used as a basis of tender for drugs by local chemists, who quoted a discount from the Apothecaries' Hall prices. The committee reported that instructions had been given for the medical officer of the Workhouse to be consulted, with a view to some other arrangements being made if thought desirable.

At a meeting of the Swindon Town Council on April 9, in discussing the question of the contracts for disinfectants, Ald. Jones asked why the orders should not be given to the local tradesmen. Mr. Shawyer said there was a fixed price at which Izal powder should be sold, and that being so he did not see the advantage of going outside the town for it. They should keep as much trade as possible in Swindon, but if there was such a large advantage in going outside then they certainly, in the interests of the public, ought to do so. Ald. Jones expressed himself satisfied with the answer.

At a meeting of the Stroud Board of Guardians on April 11, in a discussion regarding the drug-supply, it was suggested that some of the Stroud chemists should be asked to give an estimate for supplying the Workhouse drugs. A member stated that a chemist who supplied drugs to the Workhouse some years ago said he was willing to take the contract again. Another Guardian urged that after what the Local Government Board Inspector had said the Board should supply the drugs, as they were almost alone in allowing the doctor to provide them; while another expressed the opinion that it would be better for the patients if the drugs were dispensed at the Workhouse. No definite action was, however, taken.

Alleged Theft of Teeth.

At the North London Police court on April 16, Morris Roseu (16), described as a metal-dealer, was charged with stealing from the surgery at 186 Mare Street, Hackney, a set and a half of artificial teeth, valued at 10l., the property of Mr. William Sharman, chemist and dentist; and, further, with attempting to steal metal from the same surgery. Mr. Arthur Taylor, assistant to Mr. Sharman, gave evidence to the effect that prisoner called on April 5 offering to buy old metal or loose teeth. No business was done between the parties, but after prisoner (who left his card) had departed, a set and a half of false teeth were missed. Prisoner was suspected, and he returned a few days afterwards on the same errand. The assistant again saw him, and left the surgery for a few minutes to inform Mr. Sharman. When he returned he found the door closed and prisoner leaning over a cabinet containing some metal and loose teeth. He accused prisoner of stealing the teeth on his previous visit,

and according to the evidence of both Mr. Sharman and his assistant, prisoner said he was extremely sorry, and offered to pay 1*l.*, 2*s.*, or 3*s.* for what he had taken. The stolen teeth have not been recovered, and prisoner denies that he took the teeth, explaining that the money he offered was to pay for what he obtained on his second visit. After a lengthy hearing Mr. D'Eyncourt committed the prisoner for trial.

Dispensing to the Poor.

At a meeting of the Vaccination and Dispensary Committee of the Cardiff Board of Guardians on April 10, the question of supplying medicines containing poisons came up for discussion on a letter from the dispenser. Mr. Ames referred to the fact that the committee had already passed a resolution recommending that children under 10 years of age should not be supplied with medicines, &c., from the dispensary. They had been told that some bottles sent out contained enough poison to kill several people, and also that children had been caught drinking from bottles of physic when on the way home. He thought the resolution ought to have been accepted by the Board. Mr. Sutherland said a rule ought to be passed that no child under 14 years of age should be supplied with relief of any kind, medical or otherwise. The dispenser said the St. Pancras Guardians had passed a resolution to that effect. The Clerk was instructed to obtain information as to what was done in other Unions. Mr. Ames proposed that a stocktaker should be appointed for the dispensary. The quantities of expensive drugs used were increasing to a great extent. He thought a man should be appointed to work out from the prescriptions once a month the quantity of drugs used, and once every three months take stock of the drugs left at the dispensary. They would then be able to see where the increase arose. He thought the Guardians could get the work done for 20*s.* a year. The Clerk pointed out that there were over 3,000 prescriptions every month. Mr. Ames said that he could get a man to do it for 30*s.* a year, and if it cost more he would pay the difference. The proposal was entered on the minutes.

City upon City.

In making excavations for a cellar beneath the premises of Mr. J. T. Birkbeck, chemist and druggist, Bailgate, Lincoln, the workmen on April 10 struck some massive stones, which have turned out to be the roof of an ancient subway. The Lincoln of to-day, it is estimated from previous discoveries, is 7 feet above the first city, Lindum Colonia. When commencing their excavations in the street in front of Mr. Birkbeck's premises, the workmen came upon the old city wall, standing at this part 4 feet high, and consisting mainly of stones weighing approximately 15 cwt. each.

Midland Notes.

At Brownhills (Staffs) on April 9, Mr. Ashley Brown, chemist, Chasetown, was fined 1*l.* 12*s.* 6*d.* for driving a motor-cycle at more than twelve miles an hour at Burntwood on Good Friday.

Sir Ernest Spencer, M.P., offers as a Coronation gift to provide (at a cost of about 60*l.*) all the necessary instruments for the opening of a dental department at the West Bromwich District Hospital.

Some of our brethren find it profitable to cater for the high-class barber. Such things as bay-rum, perfumed spirit, cold shampoo, almond and olive oils, pomades, brillianines, and glistening pomatums are often in request, and powders of various hues for dusting the hair are now fashionable.

At Coventry last week a meeting was held under the presidency of Colonel Wyley (Wyley's, Limited), at which it was resolved, in connection with the Coronation festivities, to advertise for a Lady Godiva and a white horse to repeat the ride of the fair lady who set the city free from toll in Saxon days.

Worcester pharmacists learn that the F. & D. Inspector for the County Council complains that the Act is a dead letter in the county, in spite of the fact that the Council has gone to great expense in establishing a laboratory and appointing an analyst to try to secure purity. A circular is to be issued on the subject.

Messrs. Hedges have issued broadcast throughout Edgbaston small neatly-got-up pamphlets intimating the fact that they have invaded that fashionable city quarter, and that they are ready to supply good articles and high-class dispensing by fully-qualified assistants at low charges. They beg to emphasise that they are "chemists and druggists" and not a limited company.

Sir James Sawyer, the well-known physician, is never tired of dilating upon the virtues of honey. Addressing the members of the Warwickshire Beekeepers' Association recently, he declared that honey was a nutritious food, capable of administering to every activity of the body and mind, of muscular action, and of resistance to cold and disease. If we consumed ordinary sugar it had to be changed into glucose before we could assimilate it, but the bee had already done that for us with regard to the sugar-solution which it took from the flower. Besides being nutritive, honey was valuable as a demulcent and laxative.

The Pharmaceutical Society is worrying itself about that bogey—a compulsory curriculum (writes a Midland correspondent), but can its members be aware of the practical working of such a method? The lectures, or two-thirds of them, are attended, but little heed is given to the teaching until it comes near the end. Then come the final spurt and failure. That such is the case can easily be ascertained by comparing the percentages of passes and failures at any university old or new. In a recent conjoint chemistry examination at Birmingham University only 40 per cent. passed, and the total for the kingdom was a pass-list of about 70 out of 170, and that with a five-years' curriculum.

Masonic.

A mallet, made of wood from the Spanish Armada, has been presented to Berwick Freemasons' Lodge by Bro. W. P. Carr, chemist and druggist, through the kindness of Bro. Deacon Shaw, chemist, Glasgow. Records exist proving that the old Kilwinning Lodge, was built from the Armada, and when the new Kilwinning Lodge was built portions of the wood were preserved for memento purposes, such as the mallet which has now been presented to St. David's, Berwick. The mallet bears a silver plate on which is an inscription bearing testimony to the historic interest of the gift.

Wholesale Druggists' Cricket Championship.

The following is the list of League fixtures for 1902:—

May 17	...	Hawley v. Wellcome..	...	Hackney Marshes
" 24	...	Burgoyne's v. Davy Hill's	...	Honor Oak
June 7	...	Wellcome v. Davy Hill's	...	Bowes Park
" 21	...	Burgoyne's v. Wellcome	...	Honor Oak
" 28	...	Hawley v. Burgoyne's	...	Hackney Marshes
July 5	...	Wellcome v. Hawley	...	Bowes Park
" 12	...	Wellcome v. Burgoyne's	...	Bowes Park
" 26	...	Davy Hill's v. Burgoyne's	...	Brockley
Aug. 2	...	Hawley v. Davy Hill's	...	Hackney Marshes
" 9	...	Davy Hill's v. Wellcome	...	Brockley
" 16	...	Burgoyne's v. Hawley	...	Honor Oak
Sept. 6	...	Davy Hill's v. Hawley	...	Brockley

The competing clubs are: "Burgoyne's" C.C. (Burgoyne, Burbidges & Co.), "Davy Hill's" C.C. (Davy, Hill & Co.), "Hawley" C.C. (Evans, Lescher & Webb), "Wellcome" C.C. (champions) (Burroughs Wellcome & Co.).

Analysts' Affairs.

Mr. A. H. Allen, F.I.C., has been re-appointed public analyst for the City of Sheffield.

Mr. Francis Sutton, pharmaceutical chemist, Norwich, was on April 12 reappointed agricultural chemist for the Norfolk County Council. He was also appointed county analyst under the Food and Drugs Acts.

At the annual meeting of the Herefordshire County Council on Saturday, it was stated that Dr. Voelcker, the county analyst, had agreed to accept a fee of fifty guineas per annum to cover fifty samples, and to analyse any further samples at half-a-guinea each. These terms were accepted by the Council.

At a meeting of the Dudley Town Council on April 8 Councillor Brooks said that in view of recent magisterial decisions he questioned the propriety of reappointing

Mr. Vaughan Hughes as public analyst. Councillor Messiter observed that Mr. Vaughan Hughes was morally right if legally wrong; and the Mayor (Councillor John Hughes) said that, although prosecutions instituted on Mr. Hughes's advice had failed in court, they had had the desired effect, and the objectionable articles had been withdrawn from sale. Mr. Hughes was accordingly reappointed.

Fire.

A fire occurred in some offices over the shop of Mr. Mortensius Aspinall, chemist and druggist, in Bridge Street, Newport-upon-Usk, on April 15. Damage to a considerable amount was done, the chief sufferers being Mr. Aspinall and Mrs. Aspinall, who has a millinery establishment next door.

The Week's Poisonings.

Only eight fatalities from poisoning have been recorded during the week, but the past few days have been characterised by a large number of "narrow escapes." The fatalities were caused by liniment of aconite (taken by a man at Blackheath in mistake for his medicine), chlorodyne, carbolic acid, vermin-killer, and a solution of caustic soda with about 15 per cent. creylic acid (which a Chepstow publican drank, thinking it was port wine).—At Chorley a labourer's wife killed herself with phosphorus paste, while a Hackney Jewess drank a fatal quantity of liquid ammonia.—An engine-greaser at Liverpool, employed by the Spanish Cold Storage Company, inhaled ammonia-fumes, and died from the effects.—At an inquest held on the body of a married woman who died in Derby Infirmary, it was stated that she had injured herself by taking powders obtained from a local chemist for the purpose of procuring a miscarriage. After a long inquiry a verdict of blood-poisoning from abortion was returned.—An old woman named Grace Herbert obtained some poison from a cupboard during her nurse's absence and drank it, with fatal results. The jury expressed the opinion that sufficient care had not been taken as to the safe custody of the poisons.—The non-fatal cases include that of a boatman at Wolverhampton, who drank ammonia in error; an Oldham woman, who tried to poison herself with henbane, which she obtained from a chemist and druggist, and made into a strong decoction; a Winchester man, who took a quantity of phosphorus paste; a woman at West Ham, who drank a solution of oxalic acid; and a Bradford woman, who took a poisonous liniment.—At Faversham Quarter Sessions on April 8, a woman named Annie Clark was charged with attempting to commit suicide by taking laudanum, which had been obtained from the shop of Mr. Evan Jenkins, chemist and druggist, Market Place, by her ten-year-old daughter. The prosecuting counsel said it seemed extraordinary that a child should be able to purchase a fatal dose of laudanum without any questions being asked. Mr. Jenkins explained that he had complied with the Pharmacy Act, the second schedule of which only stipulated that the bottle should be labelled "Poison." The Recorder said it was an extraordinary thing, but, of course, the chemist was not responsible for it.—At an inquest held at Tottenham on April 16 on the body of a child aged 1 year, the son of an Italian, it was stated by the mother that she sent to a chemist for some castor oil. She gave the deceased half a teaspoonful of the mixture which was brought. The bottle was labelled, but no one in the house could read what was on the label. The child became red in the face as soon as it had taken the dose, and vomited. The child was taken to the chemist, and afterwards to the Tottenham Hospital, where it died on the following day. Mr. Bernard Jago, assistant to Mr. Walker, chemist, of 428 West Green Road, Tottenham, said he was a dentist but not a qualified chemist. The bottle brought to him had a "castor-oil" label on it, but he thought the messenger asked for creosote. He asked the man to say what he wanted a second time, and then supplied him with creosote, re-labelling the bottle accordingly. The messenger was present in court, and at the wish of the jury he said "castor oil." After hearing his imperfect pronunciation of the words the jury were satisfied that it was an easy mistake for Jago to have made. Dr. Andrew Galloway said that death was due to shock. He did not think the child actually swallowed any of the creosote. The Coroner (Mr. A. Hodgkinson) said although there had been a certain amount of carelessness the chemist could not be made responsible.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Pharmaceutical Society of Ireland.

The following are the names of the successful candidates at the recent examinations:—

Pharmaceutical Licence Examinations.—A. N. Yoxall, H. I. Gorman, B. Connolly, H. N. Forsythe, H. C. Thackeray, H. J. Owgan, H. Todd, H. I. Grubb, P. L. Doyle. Fourteen candidates were rejected.

Registered Druggist Examination.—A. M. Gamble, T. Hanna, W. H. Howe, D. O. Perry, R. Verner, passed. Four candidates were rejected.

Pharmaceutical Assistant Examination.—G. H. Batt, H. T. Grindley, J. Hunter, passed. One candidate was rejected.

Preliminary Examination.—J. O'Neill, E. Collins, Kathleen M. Roberts, W. Kelly (T. J. O'Connor = I. Keogh), J. J. Allen, W. S. Lawrie, H. G. Parker, G. H. E. Banford, A. Mitchell, F. Macguire, G. B. Hoey, M. Stack (T. Kennedy = H. Kevin). Fourteen candidates were rejected.

Must Dissent Quietly.

The opera of "The Dandy Fifth" caused some excitement in Cork last week owing to a pro-Boer element, and this week in Dublin (on the opening night of the opera, April 14) there were also scenes of disorder created by some occupants of the gallery. The police arrested eleven of the disturbers, and amongst them was Mr. James Bradley, chemist's assistant, 5 St. Benedict's Terrace, N.C.R., Dublin. The defendant, when brought up in the police-court on Tuesday, said that he was not ten minutes in the Theatre Royal when he was arrested, and he did not see why he had not a right to express disapproval or approval of what he saw on the stage. Mr. Hall (the Magistrate) said that people had a right to express dissent in a reasonable manner, but it would appear that Bradley went to the theatre with the intention of creating a disturbance, and he would have to pay a fine of 40s. or go to gaol for a month.

Analysts Wanted.

The Glenamaddy Guardians, the Durfanaghy Guardians, and the Kilrush Guardians require analysts. The salaries are not stated. The Gort Guardians are looking out for an analyst also (at 8*l.* per year), owing to the resignation of Sir Chas. Cameron as drug-analyst; while Durmannay Guardians must also get an analyst, as Sir Charles has resigned the analysis of drugs for that Union too.

No Increase in Salary.

At the Antrim Guardians' meeting last week Mr. Blake (analyst) asked for an increase of salary from 10*l.* to 12*l.* per year, as he is now doing the work at a loss to himself. A motion to grant the extra 6*l.* was, however, defeated by eighteen votes to seven.

Extras in Medicine.

At the Lurgan Board of Guardians' meeting last week Mr. Faloon said he observed an account from a local chemist for a large number of extras during the past month. He understood that the doctor was not to get such things without the authority of the Guardians. The account was 10*l.* 9*s.* 9*d.* The Chairman said that sometimes medicines were required immediately. Mr. Faloon said that some of the articles were ordered in dozens, and did not appear to be for temporary use only. No action was taken by the Board.

Accident.

A fatal accident occurred in the establishment of Messrs. Haslett, Belfast, a man named Parker Smith being cut to pieces by revolving machinery. He had been in the employment of the firm several years before. At the time of the accident no one was about, and it is not known how the accident occurred.

A Good Deed.

The public subscription in aid of the widow and orphans of the late Dr. Smyth, of Burtonport, co. Donegal, has realised 7 629/100, of which 3,600/100 was subscribed in Dublin. It will be remembered that Dr. Smyth died of fever which he contracted when conveying fever-stricken patients in a boat from the island of Aranmore to the mainland. The money has been lodged in bank in the names of five trustees, who include the Duke of Abercorn and Mr. Thomas Myles, President of the Royal College of Surgeons in Ireland.

Chemist Postmaster.

Mr. Wm. Shaw, chemist and druggist, 185 Grosvenor Street, Belfast, has been appointed postmaster for that district. Mr. Shaw received the appointment out of about forty applications.

Breaking and Entering.

Eight and six months' respectively were the sentences of the Recorder at Belfast on the horglars Anderson and Nabnez, who entered the drug-establishment of Wm. Dobbin & Co., and stole several articles therefrom.

Business Changes.

A drug-business is about to be opened at Newcastle, co. Down, by a leading northern druggist.

Mr. J. S. Weir, druggist, Strandtown, Belfast, has removed his business to new premises at 124 New Lodge Road.

Personal.

Mr. John Haslett, of Messrs. J & J. Haslett, has been very seriously ill for some time. His illness took a critical turn a few days ago. His brother, Sir James Haslett, M.P., who was in London, had to be telegraphed for.

Mr. Wm. Jameson, Vice-President of the Chemists' and Druggists' Society, has now nearly recovered from his illness. Mr. Jameson will in future assist in his counting-house, and his genial presence will be much missed on the road. Mr. Jameson was held in great respect by his brothers on the road, and was always looked up to by the younger men.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

The Kinninmont Prize.

Intending competitors are reminded that their names should be sent to the Hon. Secretary, Mr. W. L. Currie, 223, Byres Road, Dowanhill, Glasgow, before the end of this month. The examination takes place in June. Particulars on application.

Fire.

On April 10 fire was discovered to have broken out in the dispensary of Dr. Kydd, Church Street, Port Glasgow. The brigade turned out, and the flames were speedily extinguished, but not before the contents of the shop were destroyed. The fire was caused by some burning soot falling down a chimney.

Business Changes.

Mr. Thomas Armstrong, chemist and druggist, late of Dundee, has acquired the business at Maybole formerly belonging to Mr. R. Tocher, pharmaceutical chemist.

Mr. Robert Tocher, Ph.C., F.S.M.C., who recently bought the business at 491 Victoria Road, Glasgow, formerly carried on by the late Mr. James Dickie, visits Ayr weekly for the purpose of sight-testing.

Mr. William Munro, chemist and druggist, son of the late Mr. Munro, registrar, Scone, has taken a shop next door to the Post-office in that village, and will shortly open as a dispensing chemist. He served his apprenticeship with Messrs. Dandie, Newby & Dandie, Perth, and has been for some years in Edinburgh and the South.

Home from the War.

Mr. J. D. Horsburgh, chemist and druggist, Edinburgh, has returned from the front, where he has been on active service in a field hospital for two years and four months. A portrait of Mr. Horsburgh appeared in a recent issue of the *Edinburgh Evening Dispatch*.

Glasgow Notes.

The annual business meeting of the Assistants' Association had to be adjourned *sine die* on account of the meagre attendance. Like master, like man.

Judging from the frequency with which one sees chemists' windows given up to exclusive displays of proprietary soaps, &c., the practice of letting windows for that purpose must be on the increase.

Glasgow is not remarkable for the number of Major men within its borders. The latest addition to the small band amongst the passes at the recent examination in Edinburgh is an Englishman.

The Governors of the Western Infirmary are about to erect a large outdoor dispensary block on ground adjoining the infirmary. The present premises are too small for the growing demands of the work.

At the instance of a representative local pharmacist, the Glasgow district is being "prospected," with a view to the formation of an organisation on the lines of and probably affiliated to the Edinburgh and District Trades Federation.

Mr. Quarrier, the founder of the Bridge of Weir Sanatoria for Consumptives, who is appealing for 100,000/100 for the extension of the institution, states that according to a well-founded estimate there are 70,000 consumptives in Scotland, of whom 7,000 die annually. Mr. Quarrier is also anxious to establish a "colony of mercy" for epileptics.

A meeting of the Scottish Section of the Society of Chemical Industry was held on April 7 in the Technical College, John Street, Glasgow, when papers were read by Dr. Harry Ingle on "The Origin and Nature of the Free Acid formed during Hubl's Reaction with Unsaturated Compounds"; by Dr. Gray on "The Phenols from Scotch Shale Oil"; and by Dr. William Frew on "The Estimation of the Solid Extract in Worts and other Saccharine Liquids."

Upon the important representation of the Licentiate's Association, headed by Dr. Burges, the Glasgow Faculty of Physicians and Surgeons have undertaken to procure a legal definition of their licentiate's position with reference to the recent edict of the General Medical Council against the employment by medical men of unqualified persons as sellers of scheduled poisons. In stating the case for the licentiate, Dr. Burges predicted that, should the recommendations of the Poisons Committee be adopted, nearly everything in a doctor's shop would be scheduled.

The Ibrox football disaster has shown how inadequate local hospital accommodation is for such an emergency. It is now suggested that a new general hospital should be erected in Govan, and Mr. Wayland, one of the surgeons to the Victoria Infirmary, points out that the best way to relieve the chronic congestion in the number of inmates is to treat all cases of tubercular disease in separate sanatoria. An approver of this proposal says that people should support it, "and not mope away their time by discussing so much with Nurse Miss So-and-So about the fearful operation, &c., that was done by Professor McFavish on Miss Thingumbob the other day."

At a meeting of the Andersonian Naturalists' Society Professor Scott Elliot exhibited a series of specimens of wool dyed by British plants. The specimens have been presented to the Technical College by Dr. Plowright, King's Lynn, who has made a special study of the subject. Only a few simple mordants were used, such as alum, copperas, &c. Nevertheless, the range of colour is considerable, about 150 shades having been produced. Many of these are both artistic and pretty. Yellows, greens, and various hues of brown and red predominate, but there is one good blue, the indigo blue of the woad, which is still employed in some parts of England. Professor Scott Elliot remarked that the cheapness of aniline dyes practically precludes the use of vegetable dyestuffs.

French News.

(From our Paris Correspondent.)

OBITUARY.—The death is announced at the age of 61, of M. M. Cornu, a well-known French scientist and author of a number of remarkable works on solar spectrum, terrestrial magnetism, and the velocity of light. He was a brother of M. Cornu, the prominent botanist, who died some months ago.

EXPLOSION AT A PERFUMERY WORKS.—A few mornings ago there was a serious explosion at the works of Messrs. Piver, the well-known perfumers, at Aubervilliers, near Paris. It occurred through a leakage in a tank containing carbon bisulphide, the vapour of which filled one of the rooms during the night. An explosion took place in the morning, by which the roof was partly carried away, and one workman rather severely injured.

THE ANTI-TUBERCULOSIS PROPAGANDA.—Last Sunday morning M. Millerand, French Minister of Commerce, opened a new dispensary recently organised by the Paris Society for the Prevention and Cure of Consumption. The dispensary is situated in the Place de la Nativité, and is excellently arranged, the pharmacy being a special feature. The Minister spoke of the necessity of struggling, as a patriotic duty, against tuberculosis, and highly complimented the staff of the dispensary on their present efforts.

THE INTERNATIONAL CONGRESS OF PHARMACY.—A meeting of the members of this Congress was called recently to offer a souvenir to M. Charles Crinon, the General Secretary, in accordance with a resolution previously taken by the committee. The reunion was held at the offices of the Syndical Chamber of the Pharmacists of the Seine, and was numerously attended. The President of the Congress (M. Petit) took the chair, and, speaking in the name of his *confrères* who were present at the successful meetings in 1900, he referred to the arduous work so successfully undertaken by M. Crinon during the period of organisation, and, above all, in connection with the publication of the reports of the meetings. M. Petit was glad to have the opportunity of expressing the feelings of appreciation and affectionate esteem which all pharmacists have for one who, like M. Crinon, has for so long valiantly defended the interests of the profession. Other gentlemen (including MM. Marty, Rièthe, and Guichard) spoke in the same terms as M. Petit, and the formal presentation of the souvenir then took place in the name of all the members of the Congress. It consists of a handsome bronze bas-relief. M. Crinon replied in suitable terms, and afterwards received the individual congratulations of the members present.

DANVAL, THE CONVICT PHARMACIST.—Since I wrote last week concerning the campaign started by *Le Journal* regarding the pharmacist Danval, who was sentenced to penal servitude for life twenty-four years ago for poisoning his wife with arsenic, the matter has taken a new development, a public meeting in favour of Danval having been held under the auspices of some of the leading Paris pharmacists. The reunion was held in the hall of the Société d'Horticulture, and was organised by the General Syndicate of Pharmacists and the Association of Pharmacy Students. The chair was taken by Professor Cornil, a Senator of the French Parliament and member of the Institute. He was supported on the platform by MM. Trarieux (Senator and President of the League of the Rights of Man), Chatin (son of the former Director of the Paris School of Pharmacy, and member of the Institute), Galippe (member of the Paris Academy of Medicine), Dr. Béhal (Professor of Toxicology at the Paris School of Pharmacy), and other well-known pharmacists and scientists. Professor Cornil opened the proceedings by explaining that there is sufficient ground for believing that there has been a grave miscarriage of justice in the case of Danval, and it was their duty to have every doubt on the subject removed. M. Jacques Dhur, of *Le Journal*, who has interviewed Danval at the French convict settlement at New Caledonia, then explained at length the circumstances under which he came to take the matter up. Dr. Béhal followed by giving an interesting lecture on the subject of poisoning

by arsenic. He mentioned the recent new discoveries that have completely modified the scientific opinions of the experts who gave evidence at Danval's trial. These experts agreed in 1878 as to the presence of arsenic in infinitesimal proportions in the viscera of Mme. Danval. They were also of one opinion in affirming that arsenic does not normally exist in the human body. This assertion, Dr. Béhal said, is at the present time admitted to be inexact. M. Armand Gautier has recently proved that arsenic is found in milk, and in a normal state in the hair, the skin, and other parts of the human body; in fact, that arsenic is necessary to the system. M. Steins has also found it in potatoes, cabbages, turnips, and rye. It was decided that delegates should be appointed with a view to interceding with the President of the Republic on behalf of Danval, and a telegram was sent to Danval informing him that active measures are being taken to obtain his release.

THE HISTORY OF THE CASE.—The doubt as to the guilt of Danval is not new. The trial of 1878 was a sensational one, and public opinion ran high. Danval was in business as a pharmacist in the rue de Maubeuge, Paris, and was on bad terms with his wife. She died under circumstances that seemed suspicious, and the husband was arrested. The *post mortem* examination of Mme. Danval's viscera having shown the presence of a small quantity of arsenic, the question arose as to whether Mme. Danval had not been poisoned. Two of the gentlemen present at the meeting last week, who were called in as experts at the trial, MM. Cornil and Galippe, stated positively in their evidence that death was not due to poisoning by arsenic. M. Bouis, who was at that time the professor of toxicology at the Paris School of Pharmacy, gave evidence to the same effect in a particularly energetic way. In fact, it was afterwards his custom, when speaking of poisoning by arsenic in his lectures, to cite the Danval case as typical of a judicial error. Dr. Bergeron, an expert physician on the other side, insisted that Mme. Danval had been poisoned, and it was on his evidence that Danval was found guilty, but with extenuating circumstances, which led to his being transported to New Caledonia. He has never ceased to protest that he is innocent.

South African News.

STILL GROWING.—We are informed that Messrs. Burroughs Wellcome & Co. are opening an office in Cape Town.

MESSRS. LENNON (LIMITED), Cape Town, have sent in their cheque for 50*l.* to the Coronation Celebration Fund of that city.

WHAT WERE THE SEEDS?—Durban advices dated March 20 state that an Indian was lately charged before the local Magistrate with poisoning a family by placing seeds in the soup. Four people were taken sick, and a doctor declared this to be the result of vegetable-poisoning.

DISPENSERS IN RHODESIA.—The Medical Director at Salisbury recently advertised in a Bulawayo paper for a qualified chemist to act as secretary and dispenser at Umali Hospital, Southern Rhodesia. The salary offered was 200*l.* per annum, with board and quarters, the applicant to be unmarried and have a knowledge of bookkeeping.

CONTRAVENTING THE LAW.—Christine Balloch, who stated that she was a certificated nurse, was fined 5*l.* or fourteen days' imprisonment in default, at Cape Town, on March 22, for contravening Section 26, sub-Section 2, of the Martial Law Regulations by obtaining, by fraudulent representation, a permit to visit the wards of the Boer prisoners of war at Simon's Town.

We have just had a visit (writes our Durban correspondent) from Mr. J. W. McBeath, who was in business in West Hartlepool for many years, and later came out and started a business in Kimberley. He went through the siege of that town, only to find himself broken in health. He has now been appointed assayer to the De Beers Co.'s branch at Salisbury in Rhodesia, to which place he is on his way.

PLAGUE AND PESTILENCE.—A case of smallpox was discovered at Woodstock, near Cape Town, prior to the departure

of the last mail. South Africa is keeping up its reputation as the land of plague and pestilence. Rats are dying daily at both the Cape Town docks and in the Harbour Board warehouses at Port Elizabeth of plague. Of this fact there is, unfortunately, no doubt, while mysterious cases of disease continue to make their appearance in the near interior, Graaf-Reinet being the last town to report a suspicious case.

TRADE-MARKS—The Molassine Company (Limited), of 36 Mark Lane, London, are registering a trade-mark consisting of a pictorial device of a boar's head over a bull's head, &c., covering food and condiment for animals in Class 42.—Application has been made to the Cape Town authorities for the registration of the Lydia E. Pinkham Medicine Company, of the City of Lynn, Massachusetts, U.S.A., as the proprietors of a certain pictorial trade-mark in respect of proprietary medicines manufactured and sold by them, including a purifier for the blood and remedies for female complaints, in liquid and lozenge form, and in the form of pills in Class III.

BUILDING RESUMED—According to the *Bloemfontein Post* the handsome building which is now being erected on the corner of Maitland and West Burgher Streets, Bloemfontein, for Messrs. Lennon (Limited) is nearing completion. The work was commenced in 1900, but operations had to be suspended during the earlier part of the war. On the ground floor will be the pharmacy, with doctors' consulting-rooms and laboratory adjoining. The first floor will open on to a broad balcony, where there will be several offices. The premises will cost 4,000*l.* to build.

AMERICA *via* AUSTRALIA.—American exporters to South Africa located in the middle or western States, in the absence of an early sailing from New York, have now and again resorted to the Pacific route. Transhipment takes place at Sydney to one of the Australian liners trading *via* the Cape, and in many instances this roundabout method has resulted in an earlier delivery of the goods at Cape Town than would have proved possible by waiting on a vessel at New York, subject to enormous delay in discharging in Table Bay. Australian liners homeward bound have some preference on arrival from Australia, as they bring food supplies, and will not stop at all unless they can get prompt attention.

THE SALE OF OPIUM.—At Pretoria recently, before the presiding Magistrate, a local chemist was charged with "contravening the Act prohibiting the sale of poisons except under permit." The poison—a quantity of opium—was sold to an Indian woman who had had a difference with her husband, and was anxious to end life's worries. The husband discovered the wife's intentions and the opium, and reported the matter to the police. A prosecution was the result. The accused admitted the sale, but set up the plea that, opium being an indispensable article of consumption among the Indians, no permit was required in their case. It was not his custom, he said, to sell poisons indiscriminately. The Magistrate took a lenient view of the case, and inflicted the minimum penalty.

IN MEMORY OF MARTINDALE.—Before proceeding with the business of the Council of the Pharmaceutical Society of Cape Colony on March 20, the President (Mr. George Darroll) moved a vote of condolence to the widow of the late Mr. William Martindale. The President was sure he voiced the feelings of the whole of the craft of pharmacy in the Cape Colony when he said that they had all lost a very strong man, one whom they could not possibly replace. Mr. Martindale visited South Africa some three years ago, and while in Cape Town the Society had the honour of entertaining him to a dinner. His geniality and good comradeship on that occasion will not soon be forgotten by Cape pharmacists. Tennyson had hit the position in which they, as pharmacists, now found themselves in when he remarked that "words were yet but empty chaff well meant for grain," and that when eulogies had been passed by such pharmacists as Carteighe, Newsholme, and others, it would suffice if they put it on record that they, as Cape pharmacists, wished to endorse every word uttered by the co-workers of the late Mr. Martindale, and also every word of the trade Press. After referring to the chemist at Perzance who had a few minutes' chat with the deceased, and had remarked thereafter that he (the chemist) looked upon Mr. Martindale

as a lifelong friend, the speaker went on to say that there were a number of chemists in this country that looked upon him in the same way. The English trade Press spoke of Mr. Martindale as the prince of pharmacists, but if he was not the king then the speaker was very much afraid that pharmacy had no king. In seconding the vote of condolence the ex-President of the Society, Mr. J. A. Mathew (President of the Colonial Pharmacy Board), spoke very feelingly and with admiration of the work and life of Mr. Martindale. The resolution was carried in silence, the members of the Council standing with bowed head.—Natal chemists unite (writes our Durban correspondent) in paying tribute to the memory of the late Mr. William Martindale, who paid a short visit here during his recent trip to South Africa.

American Notes.

HONOURING THE DEAN.—A portrait of Dr. A. P. Prescott, dean of the School of Pharmacy and Director of the Chemical Laboratory of the University of Michigan, will be presented to that institution during the week of commencement in June, by the alumni of the School of Pharmacy.

CO-OPERATION OR COMPANY-PROMOTING ?—The "Hundred Drug-store Combination" is the name of a new company just formed to do business in Philadelphia. It has a capital stock of \$500,000. Mr. John McFadden, druggist, 1,440 South Twentieth Street, Philadelphia, is one of the promoters of the new company. The object of the company will be to take as many stores as practicable into the combination, to get favourable terms and prices, and to do a manufacturing business at a central laboratory yet to be equipped.

POVERTY AND PHARMACY.—A "Poverty Dance" was given recently by the Buffalo Pharmacists' Social Club. The invitations, printed on cheap brown wrapping-paper, said:—

Hard times have struck the sails of our ship, and we have had to pull them in, the direct cause of this, our last entertainment. The Poverty Dance does not expect you to appear in your gay evening dress—this warning is given to the fortunate few that may have them left. You are expected to put on your oldest clothes such as you may have stored away some ten years ago. The more ragged the better.

The ingenuity displayed by the average American even in his amusement is astonishing. We suspect that the spirit of the dance was the antithesis of the club's actual condition.

Recent Wills.

CLOWER.—The will of Mr. John Clower, pharmaceutical chemist 22 Bridge Street, Northampton, has been proved by his widow, Mrs. Grace Howard Clower, sole executrix. The gross value of the estate amounted to 715*l.* 10*s.* 6*d.*, including net personality 469*l.* 17*s.* 4*d.*

HOPKINS.—The will (with two codicils) of Mr. Thomas Hopkins, pharmaceutical chemist, who died at 44 Hamilton Terrace, St. John's Wood, on November 10, has been proved by his executors, the Rev. Thomas Daniel Hopkins, 139 King Henry's Road, South Hampstead, clerk, son, and Mr. William Furber, 2 Warwick Court, Gray's Inn, auctioneer and estate agent. The gross value of the estate is 41,187*l.* 2*s.* 10*d.*, and the net value 23,281*l.* 4*s.* 5*d.*

RANDALL.—The will (with one codicil) of the late Mr. W. B. Randall, pharmaceutical chemist, Southampton, has been proved by his executors—Mr. Frank William Randall, Widcombe Lodge, Ryde, Isle of Wight, mineral-water manufacturer, and Mr. Percy Mayor Randall, Glenhurst, Southampton, sons of the deceased—his widow Mrs. Mary Randall, who is named as an executor, having renounced probate. The gross value of the estate is 11,896*l.* 5*s.*, and the net personality 6,815*l.* 11*s.* His personal effects, furniture, &c., are left to his widow, to whom 200*l.* is to be paid immediately after his decease. The testator also bequeaths 50*l.* to Mr. Alfred Mumford, pharmaceutical chemist, as a token of friendship and esteem; also 20*l.* to Mr. James Vassell, who has been in his service since boyhood. The residue of the estate is left in trust for his four sons—Mr. Frank William Randall, Mr. Percy Mayor Randall, Mr. Ernest Bidgood Randall, and Mr. Alexander Brodribb Randall. To his son Frank he bequeaths certain pictures.

Colonial and Foreign News.

A HERB-TEA FORTUNE.—The family of the deceased Dr. Lieber owed their prosperity to the sale of a once much sold "tea," said to have been *Herb. galeopsid. grandiflor.*

BUSINESS CHANGE.—The Medical Hall at Agra, formerly belonging to Messrs A. John & Co., has been acquired by the Agra Medical Hall & Co-operative Association (Limited), of which Mr. F. H. Trehearne is manager.

ROUMANIAN PHARMACY.—Twenty-five new pharmacies are to be opened in Roumania, of which three are to be in Bucharest. Up to now the average of pharmacies to population has been one pharmacy for 25,000 inhabitants.

AUSTRALIA AND THE DECIMAL SYSTEM.—The Committee on Decimal Coinage, appointed by the Federal House of Representatives, has recommended the adoption of the decimal system of coinage with the retention of the sovereign as the standard value.

CHEMICALS FOR W. AFRICA.—The *Gold Coast Globe* says there is an opening in West Africa for goods manufactured by wholesale chemists and surgical instrument makers. The medicine chests of the expeditions sent out by the mining companies are always well stocked with drugs.

MORE CASEIN.—The Budapest firm of Ruda & Co. is erecting a casein-factory at Maria-Theresiopel. The Government has promised a subsidy of 720L. on the condition that the factory shall use all the cheese produced by the union of agriculturists of the county—viz., about 600,000 kilos. yearly.

TURKISH BORAX.—The International Borax Trust has acquired the Panderma mine on the south coast of the Sea of Marmora. The exportation of the Turkish borax has not been profitable of late years owing to competition with the South American product, and in 1901 only 4,000 tons were exported.

WAKING UP.—With a view to the further development of its foreign trade the New South Wales Government has appointed four commercial agents. Special attention is to be given to the Far East, South Africa, and Canada. The Victorian Government has also appointed a commercial agent in South Africa.

MEDICAL RESEARCH IN THE STRAITS SETTLEMENTS.—The Institute for Medical Research at Kuala Lumpur (see *C. & D.*, January 4, page 5) is now ready for workers in general pathology, bacteriology, and chemistry. The work of organisation is almost finished, but the European assistants have not yet been engaged. Dr. Hamilton Wright, the director, hopes that independent workers will take advantage of the Institute when it becomes better known.

THE ASH OF A MAN'S SKULL is still in great demand as a popular remedy in Japan. The whole head is placed in a pot and carbonised, then powdered. It is then considered a first-rate blood-cleanser. An article in a daily paper, saying that gravediggers were doing a great trade in stolen heads, brought on an investigation, and only two cases were proved. The inspection of a large number of pharmacies also was ineffective, the pharmacists stating that they used the heads of monkeys.

SAKÉ-BREWING IN JAPAN.—Consul-General Bellows, of Yokohama, has furnished an interesting report on saké-brewing in Japan. It describes the process of manufacture, and gives some chemical analyses prepared by Mr. R. W. Atherton, professor of analytical and applied chemistry in the Tokyo University. Saké, the national drink of Japan, is as wine to France and beer to Germany. It is manufactured almost entirely from rice, and differs from beer chiefly in having a larger percentage of alcohol and smaller proportions of dextrose and dextrin.

PROPOSED AMERICAN STORE.—The American Consul at Bombay laments the fact that his country does not receive its fair share of the import or export trade of India. To remedy matters he proposes an American Department Store at Bombay to be composed of ten or twelve departments each controlled by a sub-manager. The sales, both wholesale and retail, would be on a cash basis or its equivalent, and

sufficient goods would be carried in stock to permit immediate delivery. An American merchant in Bombay is writing up the plan and is to place it before American exporters.

PHARMACEUTICAL SOCIETY OF JAPAN.—The recent communications to the Society, which has its headquarters at Tokyo, include a paper on the constituents of sukuri seed, by Mr. Y. Kunitomo, who has examined the seed and proved that it contains a large quantity of tartaric acid beside some malic and citric acids. Mr. F. Ando has commenced the examination of the methods of testing compound "saké," partly for hygienic purposes and also in its bearings on taxation. Patent medicines are having the attention of Mr. S. Ogawa, who reports the results of examination of a few of them.

TENDERS FOR SULPHATE OF COPPER.—The *Gaceta de Madrid* of April 1 contains a notice calling for tenders which will be opened thirty days after that date, at 11 A.M., in the office of the Inspector-General, Chief of the Telegraph Section of Posts and Telegraphs, Caretas 10, Madrid, for the supply of 30 tons sulphate of copper, for the service of the telegraph stations of the State, at the upset price of 923 pesetas, or about 27L. per ton. Tenders must be presented five days prior to the date for opening, and a provisional deposit of 5 per cent. of the amount of the contract calculated at the upset price is required to qualify any tender.

QUININE IN MALARIA.—An article in a recent issue of the *Messaggero* of Rome criticises a law passed in November of last year enforcing the use of a preparation of quinine (Quinine confectionnée par l'Etat) manufactured by the Government. The purchase of this quinine is to be a charge upon the community amongst the proprietors of lands where the peasants, workmen and employés are engaged in the malarial districts, these districts being enumerated. It enacts that should a workman die from disease occasioned during his employment, and it can be shown that he had not been supplied with the Government remedy through the fault of his employer, the latter can be made to pay a strong indemnity to the family of the deceased. The result of this law according to the *Messaggero* will prevent the development of the best work in those infected areas which only by cultivation and drainage can be made beneficial to the public. It obliges doctors to use this remedy exclusively although many have grave doubts of its absolute efficacy, and it prevents both doctors and employers from using other treatment which may be more beneficial.

A RUSSIAN ANNIVERSARY.—The Congress of Pharmacy, which had been arranged to take place in commemoration of the two-hundredth anniversary of the opening of the first public Russian pharmacy, was held at St Petersburg last month. A reception was held on March 18 at the residence of Professor A. von Poehl, the President, and the Congress was opened by the Hon. President (Professor Mendelejew) next day. In the course of his address, Professor Mendelejew stated that the development of scientific pharmacy in Russia was closely connected with Peter the Great. Since his reign it had made great progress, and had changed from a botanical to a chemical pharmacy. He pointed to the necessity of pharmacists establishing scientific pharmaceutical associations, and of them attaching themselves to learned societies, and he hoped that pharmacists might be shortly allowed to take the doctor's degree, which at present they are not allowed to. The Congress was divided into (1) pharmaceutical and biological chemistry, (2) pharmacognosy and pharmaceutical botany. One question discussed was whether pharmacists should strive for uniformity in dispensing, and a speaker said it was not possible to prepare identical preparations in all pharmacies, due in some cases to the defects in the Russian Pharmacopœia.

At a meeting of the Andersonian Naturalists' Society, Mr. Woodrow mentioned that he once read in a book on Indian botany of a tree in India, the wood of which burnt as readily when green as when dry. He had afterwards identified this tree in the Western Ghats, and verified the statement of the book. There was also a belief, vouched for in an English work on botany, that the wood of the ash and that of the hawthorn were as combustible green as dry, but he had disproved this experimentally.

Pharmaceutical Society of Great Britain.

EVENING MEETING.

THE last of the evening meetings of the session took place on April 15, Mr. G. T. W. Newsholme (President) in the chair. The attendance was rather better than usual, some fifty being present, including Dr. Barker-Smith and Messrs. A. Cooper, W. Hills, W. S. Glyn-Jones, E. M. Holmes, E. T. Brewis, W. L. Howie, T. Stephenson, H. Helbing, R. Bremridge, and F. A. Upsher-Smith.

After a few preliminary remarks, the PRESIDENT called on Mr. P. W. Squire to read his paper on

CITRINE OINTMENT.

Mr. SQUIRE explained that the paper was the outcome of the discovery of two old samples of citrine-ointment made according to the formula he suggested in 1897 and afterwards abstracted in the seventeenth edition of the "Companion."*

The samples were placed on the table, and it was seen that the pale lemon colour had darkened somewhat, but had not turned dark as samples had made at a similar time by the process which was afterwards adopted in the B.P. The objections urged against the Squire process were that the ointment "must be from the nature of the case exceedingly acid," and that "however well stirred, it is apt to be spongy." Mr. Squire finds, however, that the product is no more acid, and has no greater tendency to become spongy, than the ointment made by the B.P. process. The percentage of spongy lumps made in Mr. Squire's laboratory is, in fact, greater in the case of the official formula. When Lucas's process (which afterwards became official) was first suggested in the *Pharmaceutical Journal*, it was pointed out by Mr. Squire that as the mercurial solution boils at 250° F., or 100° lower than the temperature of the heated fats, expulsion of the contents of the vessel was likely to occur on mixing. The temperature was lowered 60° in the B.P., but is still sufficiently above the boiling-point of the mercurial solution to cause trouble, though not to such a dangerous degree as before. A good deal would depend also on the interpretation of the expression "very gradually" by the operator. Mr. Squire made experiments with a view to determining the acidity of citrine ointment. Using normal soda, and either phenolphthalein, methyl orange, or litmus, it was found that the indicator did not act until the whole of the acid, either free or combined with the mercury, was neutralised by the soda. The titration showed, moreover, that almost the whole of the nitric acid was determined by this method, and that it is no easy matter to determine the quantity of free nitric acid in the presence of mercuric nitrate. Calculating the mercury in the B.P. ointment to mercuric nitrate, it works out as 3.78 per cent. of total nitric acid, and on shaking one of the old samples made by the Squire process with a mixture of petroleum ether and water, and titrating the aqueous portion the result came out as 3.78. The acid was clearly not free, as soda gave at once a yellow precipitate. If the ointment is simply shaken with warm water, only 0.69 per cent. of nitric acid is shown; but here again the acid was not free. Mr. Squire gave the details of the process, and concluded by saying that in his opinion the official method was no advantage over his process, but rather the reverse, as its keeping qualities were not so good, and it was not so easy to manipulate.

There was no discussion on the paper.

The PRESIDENT then called on Dr. Augustine Henry to read his paper on

CHINESE DRUGS.

and said that although Dr. Henry had not previously read a paper before the Society he was well known as an energetic

corresponding member and contributor to the museum. He mentioned also that the Royal Horticultural Society had just awarded to Dr. Henry a medal for his researches on Chinese botany, and, added the President, "Dr. Henry is probably the greatest living authority on Chinese drugs."

Dr. HENRY began by referring to the wonderful Chinese herbal attributed to "Shen Nung," or the Divine Haler, as the most ancient herbal in the world. In this herbal 347 drugs are specified, 239 belonging to the vegetable kingdom, 65 animal, and 43 mineral. It was mentioned that myrrh, asafoetida, olibanum, opium, and camphor were comparatively modern introductions into China, but that the herbal enumerates such well-known drugs as liquorice, rhubarb, gentian, mallow, aconite, madder, cinnamon, ginger, croton, gelsemium, podophyllin, cimicifuga, hyoscyamus, and artemisia. The five ancient poisons were croton, veratrum, aconite, cantharides, and lang tu (unidentified).

In China the sale of certain poisons is absolutely forbidden, but the Chinese druggist gets over the difficulty by renaming the poison. Both buyer and seller are decapitated in case of accident with poison. The doctrine of signatures is in vogue in China, but there is unquestionably a good deal of accurate observations made as the result of experiments. Simple ailments are fairly accurately understood, but the Chinese are wildly theoretical when it comes to acute diseases.

The best-known Chinese drugs were then considered seriatim.

Camphor, as before mentioned, was not used in China as a drug anciently, although the wood of the tree was employed for making boxes. Sumatra camphor from the *Dryobalanops* tree was first introduced into China, and Dr. Henry mentioned that it was through the early Dutch settlers that the Formosa and Japanese camphor-industry was introduced. Camphor is obtained from *Cinnamomum Camphora* and *Blumea balsamifera*, and is a monopoly of the Japanese Government.

Opium was introduced into China from abroad. In 1765 200 chests of the drug were imported. It is not known when opium-smoking began in China, but an edict was promulgated 100 years ago forbidding the practice. Dr. Henry briefly discussed the aspects of the opium question. Opium-smoking is recognised by the Chinese as a great evil, the Japanese have succeeded in stopping the practice in Formosa since they came into possession of that district, and the Roman Catholic Church forbids its votaries in China from dealing in or using opium in any form. The export of opium from India to China is dwindling, and Dr. Henry thinks that the Government would do well to replace the cultivation of opium by other crops, only growing sufficient to supply medical needs.

Tu chung, a bark used as a remedy for excessive perspiration, is yielded by the genus *Eucommia* (discovered by Dr. Henry), in the small Eastern order *Trochodendraceae*. *Tu chung* is interesting on account of its elastic fracture and as a possible source of gutta-percha.

Bandoline wood, so called because the shavings soaked in water yield a bland mucilage used for smoothing the hair, is yielded by *Machilus Thunbergii*. S. et Z.

The receptacles of *Ficus pumila*, L., from Formosa, are used for making a jelly. The receptacles are steeped in water, and the product sweetened makes a pleasant summer food.

Ginseng occurs in two principal varieties—one is found in Manchuria, Japan, and Corea, and the other in the United States and Canada, and, although there are differences between the two kinds, they are both called *Aralia quinquefolia*, Pl. et Dene., in the Kew Index. A cultivated form of ginseng, to which the Chinese attribute quite different properties, is called "San-ch'i." It is used for surgical hurts, and Burkill has identified it as *Aralia quinquefolia* var. *Notoginseng*.

Huang-lien, cultivated in Hupeh, is *Coptis chinensis*, and probably identical with *Coptis Teeta*, Wall. Large quantities of huang-lien are imported into Bombay from China. The rhizomes of *Picrorhiza Kurroa*, Royle, are also found in the native drug-shops.

Rhubarb, notwithstanding its antiquity, has not had its botanical origin clearly defined. The only dried specimens of *Rheum*, producing rhubarb for the market in China itself, which have reached Europe have been identified as *Rheum officinale*. The great seat of the rhubarb-trade is at Hankow.

* Dissolve without the aid of heat the mercury in the nitric acid. Heat the lard and oil on a water-bath until the lard is dissolved, and when at a temperature of 180°-190° F. add the mercuric solution (cold) to the melted fats and stir continuously. When brisk effervescence has commenced, continue the heat for ten minutes, then remove from the water-bath, and stir till cold.

A portion of the rhubarb met with in this great market comes down the Yangtze from Szechwan and Tibet *via* Tchang; another part apparently comes overland, or down the Han River from Kansu and Shensi. The great interior market of rhubarb is Si-ning, in Kansu, and an immense quantity of the drug is collected in the mountains around that city. Pratt says a good deal is collected at Za-chun li, where it is simply sun-dried and pierced with holes. It is sent from there to Si-ning, where it receives further treatment, being dried again after being thoroughly scraped. Dr. Henry then traced the attempts that have been made to fix the botanical origin of rhubarb. Bretschneider holds that Przewalsky in 1872 discovered the plant yielding it in Kansu to be *Rheum palmatum* var. *tanguticum*; another species from Szechwan and S.E. Tibet was described by Baillon as *Rheum officinale*. Maximowicz says that *Rheum palmatum* occurs in W. Kansu, but that in E. Kansu a different species, probably *R. officinale*, Baillon, or *R. Pichonii*, Pierre, is found. Mr. Holmes, from the peculiar markings of the best Chinese rhubarb, finds it is not yielded by either *R. palmatum* or *R. officinale*, which seems to show that there is an unknown species. Dr. Henry suggests that efforts should be made to obtain specimens of the plant growing in E. Kansu and Shensi, as these localities are the most likely ones in which the third species will be found. From these districts the drug would go to the great central market of Si-ning and be distributed as rhubarb to the world. No rhubarb is now exported from Canton or Tientsin, all comes down the Yangtze from Hankow.

Mu-erh, a fungus used as an article of food, is *Hirneola polytricha*. It resembles the fungus known as *Hirneola auricula-judæ* (Jew's ear), and is said by Mr. Massee to be only an eastern form of it.

Lysimachia Penumgræcum, Hance, is very common in Kwangsi and Yunnan, and is much used as a scent for hair-oil.

Dioscorea rhipogonoides, Oliver, occurs in Formosa, S. China, and Tonkin. The tuberous root, called the dye-yam, is used in enormous quantities for preserving fishing-nets and for dyeing. The properties of this article are well worth scientific investigation.

A sample of *Extract of tea* made in the office of the Prefect at Szemao and used only by the Dowager-Empress, to whom it is sent as tribute, was shown. It is in the form of a yellowish-brown powder, and contains 6 per cent. of caffeine and 12 per cent. of tannin.

There are several kinds of *Soap trees* in common use in China—*Gymnocladus chinensis*; various species of *Gleditschia*; *Sapindus Mukorossi*, Gaert; and *Pancovia Delavayi*, Franchet. The residue of the seeds of *Camellia Sasanqua*, Thunb., from which "tea oil" is pressed, is used as a hair-wash, and for washing fabrics. A decoction is used in Hong-Kong for killing earthworms in lawns.

Cassia and Cinnamon.—Cassia-bark has been shown by Ford to be derived from *Cinnamomum Cassia*, Bl., but the botanical origin of two other cinnamon-barks is unknown. One is the thick and extremely dear bark, so much esteemed by the Chinese as a medicine, which comes into China from French Laos, being carried across the Red River northwards into all parts of China. The other bark is the so-called Saigon cassia, a regular article in the New York market. It is imported from Hong-Kong, and comes from Annam, being neither a product of Saigon nor Cochin China. The bark is cultivated in the wild mountains of Annam by natives, who call it "moi." In 1896 the export from Annam was 241,000 kilos.

Star-anise.—The true star-anise, the product of *Illicium*, Hk f., only occurs in Kwangsi and Tonkin. In Japan *Illicium anisatum*, L., produces poisonous fruits, which closely resemble the true fruits, and enormous quantities of it are imported into China, but what it is used for Dr. Henry has been unable to find out. Such questions are difficult of elucidation, and the lecturer acknowledged the help he had received from Mr. Holmes in clearing up difficult points. Chinese cubebæ, for instance, have been shown by Mr. Holmes to be the product of *Litsæa citrata*, Blume. A similar tree, *Litsæa pungens*, Hemsley, yields in Hupeh "mountain pepper," used by the Chinese as a condiment. Huang po, a yellow bark used as a dye, has been shown to be produced by *Phellodendron amurense*, Rupr.—an identification which the Japanese have accepted from Mr. Holmes and the lecturer.

The lecture finished with a suggestion for a botanical exploration of China, comparatively nothing being known of the upper surface of the forests owing to the immense height of the trees. Attention was also drawn to wood oil yielded by the seeds of *Aleurites cordata*, M. Arg., which was used as a varnish, and the great variety of substances yielding tannin, as certain acorn-cups and the cones of *Platygyria strobilacea*, S. et Z.

The PRESIDENT said that China was evidently an exceedingly interesting country, especially from the botanical point of view. It seemed to be well worth further investigation, and he hoped a scientific expedition would some day take the matter in hand.

Mr. E. M. HOLMES paid a tribute to Dr. Henry's knowledge of Chinese drugs, and said the Society's museum, which contained probably the best collection of Chinese drugs in Europe, owed much valuable information to him. Mr. Holmes recalled the work which Daniel Hanbury did many years ago on Chinese remedies, and which is printed in "Science Papers." The Chinese characters of the drugs are appended, and it is a tribute to the accuracy of the work that only one of the characters has since been found to be upside down. A work on Chinese drugs, published in 1871 by Dr. Smith, remarkable for its inaccuracy, had been unfortunately taken as a standard by the Chinese Customs authorities, but his own collection of Chinese drugs, as well as the Chinese drugs shown at the Colonial and Indian Exhibition were in the Society's museum. Dr. Henry had been through the whole of the collections and had made a series of useful notes on them. The gelsemium used in China was not the same as that used in Europe, and the Korean ginseng, which was worth its weight in gold, probably owed its medicinal value to its action as a heart-stimulant. Coptis contains about 8 per cent. of berberine, a higher percentage than any other berberine-containing plant. Mr. Holmes confirmed what Dr. Henry said about the identity of the "Russian" rhubarb being as yet unknown, and said that the fungus *mu-erh*, which was soft like a human ear, could probably be cultivated in this country. In regard to the Saigon cassia official in the U.S.P., a New York firm had, he believed, the monopoly of the drug, as the whole of the supplies went through one firm. He had never been able to find out whether *Illicium religiosum* was an intentional addition to star-anise, but from what Dr. Henry had stated he thought it might be accidental. (Dr. Henry had said that the Chinese suffered very much from cholera, which might be due, he suggested, to poisonous anise which produced similar symptoms). In regard to the introduction of Chinese products into Europe, Mr. Holmes thought that some of the saponin-yielding plants might be advantageously employed for washing silks and other delicate fabrics, and that tung oil could in some cases replace linseed oil; indeed, the fruits of *Sapindus Mukorossi* and tung oil had been recently imported into this country. Professor Greenish had examined the bandoline-bark, but had not been able to stain the mucilage-secreting cells so as to show them on the screen.

Dr. BARKER-SMITH asked if Dr. Henry could give his impressions as to the success of Chinese medical practice. Were there any drugs unknown in Europe which had, for instance, pronounced resolvent action?

Mr. HILLS asked if botany was taught in China at all.

Mr. R. A. ROBINSON, jun., inquired as to the Chinese blistering-beetles. Was there any recognised industry?

Dr. HENRY, in reply, said it was impossible to know much about Chinese medical practice, as one could not get sufficiently into the confidence of native doctors, and there were no schools of medicine. The Chinese were not impressed by European medical practice, but admitted that they (the Europeans) shone in surgery. His impression was that the Chinese had a good deal of empirical skill in medicine, but he said he had come across a statement that trepanning was practised as far back as the fourth century. Botany was not taught in China, and the importation of a scientific botanist a few years ago was not attended with much success, because that gentleman was only acquainted with microscopic botany. Blistering-beetles are an article of trade, but he had confined himself rather to the vegetable *materia medica*, and had not been in a district where the beetles were collected.

A vote of thanks was accorded to Dr. Henry for his paper.

EXAMINATIONS IN EDINBURGH, APRIL, 1902.

THE Registrar of the Pharmaceutical Society of Great Britain has furnished us with the following list of persons who have satisfied the Examiners at the recent Major and Minor examinations held in Edinburgh:—

MAJOR EXAMINATION.

Candidates examined and passed ... 3

Baxter, Alex. C., Edinburgh | Bintliffe, J.W., Holywell Green
Rodwell, Henry, Glasgow.

MINOR EXAMINATION.

Candidates examined ... 122

„ failed ... 79

„ passed ... 43

Allan, David Souther, Aberdeen
Anderson, Wm. G., Edinburgh
Blackburn, Sidney Richard,
Newcastle-on-Tyne
Brittain, Richd. H., Edinburgh
Bruce, F., New Deer, Aberdeen
Cox, Horace Nelson, Edinburgh
Craig, Thomas Forrest, Kelso
Dainty, J.E., Barrow-in-Furness
Dewar, A. O. C., Cupar, Fife
Dick, Jas. Anderson R., Forfar
Forrester, Ethel M. G., Edinburgh
Fraser, David Wilson, Ayr
Frost, Wm. Thos., Worthing
Gibson, Wm. Wightman, Buckie
Granger, Ernest Richd., Whitby
Gross, G. F. C., Barrow-in-Furness
Henderson, John Reed, Glasgow
Jones, Arthur A., Liverpool
Jones, Benjamin S., Crewe
Kelman, John, Edinburgh
Kirby, William, Northallerton

Lishman, Arthur, Newcastle-on-Tyne
McArthur, Donald, Glasgow
McDiarmid, Geo., Edinburgh
McGeorge, Richd., Edinburgh
McHardy, Alex., Dalkeith
MacLean, Jas., Conon Bridge
McLellan, J. Y., Kirkintilloch
Maxwell, William, Kelso
Michael, George, Edinburgh
Mungall, Allan, Avonbridge
Nicolson, Charles, Glasgow
Parker, Benjamin, Derby
Pollock, Thomas L., Penrith
Pugh, Francis Chas., Liverpool
Pyatt, Geo. Henry, Nottingham
Reid, David, South Shields
Smeddles, G. R., Barrow-in-Furness
Swan, William, Dumfries
White, C. H., Burton-on-Trent
Whyte, Edward, Dundee
Wilkinson, John Feather, Leeds
Wilson, Stewart, Glasgow

Trade-Marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost 1s., obtainable through any money-order office.

(From the "Trade-marks Journal," April 2, 1902.)

Device of "O" with arrow, and "Ospia" with arrow through "O"; for perfumery. By the "Ospia" Perfumery Company, 8 Ludgate Hill, E.C. 244,383 and 244,344.

"REPEATER"; for perfumery. By A. H. Franks, 61 and 63 Upper Parliament Street, Nottingham. 244,641.

"LIENOLINE"; for a linoleum and leather polish. By C. J. Badham, Christchurch, N.Z. 241,196.

(From the "Trade-marks Journal," April 9, 1902.)

"GOLDINE" and other wording (no claim for the exclusive use of the word "Gold"); for gold-paint. By Tyler & Ashmore, 21 Albert Street, Birmingham. 244,037.

"BOARDINE" (the essential particular—no claim for "Board"); for a blackboard varnish. By J. Moncrieff, Perth, N.B. 243,814.

"TERMIFOE"; for a chemical wood-preserved. By Burgoyne, Burbidges & Co., Coleman Street, E.C. 244,147.

"SULPHOL" (no claim for "Sulpho"); for chemicals. By A. Boake Roberts & Co. (Limited), 100 Carpenters Road, Stratford, E. 244,797.

"LIGMOLLENE"; for patent medicines. By W. H. Malyon, Sturt Street, Ballarat, Victoria, Australia. 243,596.

Device (the essential particular) of a label for a rheumatism cure. By H. G. W. Claringbull, Fairfield Cottage, Belle Vue Park, Beeston, Notts. 243,999.

Device (the essential particular) of portion of a belladonna-plant for chemicals. By Gale & Co., 15 Bouverie Street, Fleet Street, E.C. 244,019.

"PING PONG"; for goods in Class 3. By S. H. Ward, 48 Cranmer Street, Nottingham. 244,259.

"MALPRECIER"; for medicines. By A. A. Pyke, 22 Bishopsgate Street Without, E.C. 244,277.

"EUPNEIN"; for a medicine. By Schiefflin & Co., 170 William Street, New York, U.S.A. 244,330.

"TORRENT"; for aerated-water machinery. By the Rylands Glass and Engineering Company (Limited), Barusley. 244,459.

"COMPOID" (no claim for "Compo"); for goods in Class 40. By Falconnet, Perodeand et Cie., 4 Place Carnot, Choisy-le-Roi (Seine), France. 242,125.

"FRUITOSE" (no claim for "Fruit"); for goods in Class 42. By S. M. Freeman, 7 Victoria Street, Liverpool. 242,865.

"MOLASCUIT" (no claim for "Mola"); for food for animals. By G. H. Hughes, 155 Fenchurch Street, E.C. 243,536.

Combination of devices and facsimile of signature of the firm (essential particulars); for vinegar. By Dessaux Fils, 17 Rue de la Tour, Neuve, Orléans. 243,053.

"IXONDI BRAND" device; for foodstuffs. By W. Dixon & Son, 29 Crown Street, Leeds. 244,282.

"NEUFALINE" and combination of devices (the essential particulars); for a detergent. By Charles Buchet et Cie., 13 St. Mary Axe, E.C. 243,723.

Shield device with picture of lady, and the word "FOSCARINA" (the essential particulars); for a perfume. By Ed. Pinaud, 18 Place Vendôme, Paris. 242,701.

"NUTRICAP"; for hair-preparations. By E. Renton, 26 King Street, St. James's, S.W. 243,054.

"GONDOLA"; for polishes, &c. By Helen Pringle Kirtley, 86 Brighton Grove, Newcastle-on-Tyne. 244,039.

"POLI-VARN"; for leather and furniture polishes, heel-ball, knife powder, &c. By John Packer Company, Honeywood Road, Willesden, N.W. 244,153.

"LIMPET"; for a waterproofing-solution. By Douglas McNae, 530 Fulham Road, S.W. 244,326.

(From the "Trade-marks Journal," April 16, 1902.)

"BURNATIVE" (no claim for "Burn"); for a chemical-smoke preventive. By H. J. McBride and H. W. McBride, Hyde Park Bleach works, Belfast. 243,972.

Device of steamer with words "Ilford Limited"; for photographic goods. By Ilford (Limited), Roden Street, Ilford, E. 240,679.

"FLASHAXE," "GOLDAXE," "SENSAXE," "PLATINAXE," "CERAXE," "URANAXE," "INTENSIFAXE," "REDUSAXE"; for chemicals. By Fuerst Brothers, 17 Philpot Lane, E.C. 244,665, 244,666, 244,667, 244,668, 244,669, 244,670, 244,671, and 244,672.

"PING-PONG FEBRISUM" (no claim for "Febris"); for goods in Class 2. By S. H. Ward, 48 Cranmer Street, Nottingham. 244,604.

Device and the word "Hämatogen" (the essential particulars. No claim for "Haemato"); for a blood tonic. By Nicolay & Co., Josephstrasse 22, Zurich III, Switzerland. 238,860.

Device and word "Biokon"; for a medicine. By H. E. Law, 2304 Van Ness Boulevard, San Francisco, California, U.S.A. 240,417.

Combination of devices (the essential particular); for a medicine. By J. B. Daniel, 32 and 34 Wall Street, Atlanta, Georgia, U.S.A. 243,592.

"HUMPO"; for a medicine. By the Humpo Cure Company, 10 Featherstone Buildings, Holborn, W.C. 244,843.

Picture device; for goods included in Class 3 (but not including salves). By the Samaritan Healer Company, 67 St. Domingo Grove, Liverpool. 243,380.

"VAROMA"; for lung and throat cures. By the Varoma Medical Company, 170 William Street, Borough of Manhattan, New York, U.S.A. 244,072.

"PHOSFERINE" and label; for a medical preparation. By Ashton & Parsons (Limited), 17 Farringdon Road, E.C. 244,526.

"VARILLA"; for a medicine. By J. W. Simpkin, 5 Nelson Terrace, Dundee. 244,676.

"GOLDEN SWAN" and device of swan on label; for baking-powder and egg powder. By Pearce, Duff & Co., 79 Rouel Road, Bermondsey, S.E. 244,470.

Trade Notes.

MESSRS. LEATH & ROSS, homeopathic chemists, 58 Duke Street, Grosvenor Square, W., inform us that they have a direct representative leaving for China, Japan, and India on Saturday.

TRADE-TRUCKS.—Messrs. Reigate & Mason, Wrottesley Street, Birmingham, send us a copy of their new season's price-list of carriers and delivery trucks. Several of the trucks are specially devised for chemists' use.

THE regular trade-exhibition season is still some months off, but an announcement of the dates of the Confectioners', Grocers', and Brewers' exhibitions is made in our advertisement-columns, so that intending exhibitors may book space well in advance.

MESSRS. CRESSWELL BROTHERS & SCHMITZ, Red Lion Square, W.C., inform us that they have no connection with the firm which recently traded in Cape Town under the firm-name of Cresswell, Sons & Co., nor do they employ any local or indent agents in Cape Town.

"TABLOID" AMMONIUM CHLORIDE AND LIQUORICE.—We referred last week to a new tabloid that Messrs. Burroughs Wellcome & Co. have introduced for the treatment of bronchitis, containing apomorphine, ammonium chloride, and liquorice. A similar preparation without the apomorphine is now available, put up in bottles of 100.

THE ANNUAL REPORT FOR 1901 prepared and published by the firm E. Merck, Darmstadt (16 Jewry Street, London, E.C.), contains a great deal of useful chemical and pharmacological information regarding the newer materia medica, besides an exhaustive monograph on the assay of opium, to which we hope to refer more fully on an early opportunity.

PHOTOGRAPHIC CHEMICALS—Messrs. Harrington Brothers, manufacturing chemists, 4 Oliver's Yard, City Road, E.C., who have already a reputation for their photographic chemicals, send us a copy of the new list of the goods they are issuing. Besides selling the chemicals in bulk, many of them are put up in bottles ready for sale, and a special department is occupied in making and bottling developers and other solutions, according to the photographic chemists' own formulas.

SPHAGNUM, or dried moss, for which Mr. Martindale, 10 New Cavendish Street, W., has the sole agency, deserves to be better known in the colonies. It is used as an absorbent dressing, and has a pleasant peaty odour and antiputrescent qualities. The moss is sent out in sheets, like cardboard, $\frac{1}{8}$ inch thick, and when wetted absorbs ten to twenty times its weight of water and swells up to the thickness of an inch. It makes an excellent poultice-material. Colonial readers who are not already acquainted with dried moss should write for a sample.

SEASONABLE GOODS.—Messrs. T. Howard Lloyd & Co., Leicester, submit samples of three leading lines for the summer season—citrate of magnesia, Saline Grains, and Sulphur Saline. These are packed goods labelled with tasteful stock labels. For the Saline Grains and Sulphur Saline round-corner white bottles are used which show off the white or pale yellow of the contents. We find that as granular effervescent preparations they leave nothing to desire, and that, on placing the granules in water, the effervescence is well sustained.

A GOOD LINE—Messrs. Woolleys (Limited), Blackburn, have shown us a sample of their Sulphur-and-Sarsaparilla Health Salt which is in a different form from what such preparations usually are. The salt is in powder form, and of a brown colour; it smells like compound decoction of sarsaparilla, and when put in water dissolves at once, but leaves a nice foam on the top of the sparkling liquid. It is being introduced to chemists in tastefully decorated tins, which should go a long way to selling the preparation. The salt is packed under the distinctive name of the "Revo" brand.

FOR THE COLONIES—Messrs. Kay Brothers (Limited), of Stockport, have recently received a testimonial written by the late Dr. Jeffreson, F.R.G.S., of Morocco, testifying to

the efficacy of the "Vampire" fly-catcher as a snarer of mosquitoes. Messrs. Kay have also sent us a 1*l.* sample of "Tenasitine," their new cement. It is put up in collapsible tubes to retail at 1*l.* and 6*d.* each. The 1*l.* tubes are put up on cards, $1\frac{1}{2}$ doz. to each card, and two cards are fitted in a box. In the Colonies Messrs. Gollin & Co. (Limited), of Melbourne, Sydney, and Auckland, will hold stock of both of these articles, which should find a ready sale amongst the clients of our Antipodean brethren.

THREE PHARMACEUTICAL PREPARATIONS reach us from Messrs. Parke, Davis & Co., 111 Queen Victoria Street, E.C., which are of considerable interest. The first is adenalin chloride solution (1-1 000), to which reference has been frequently made in our columns, especially as to its value as an astringent and hæmostatic. Cascara Evacuans is a new preparation of cascara sagrada, which originated from the fact, discovered by Messrs. Parke, Davis & Co., that cascara does not owe its laxative effect to the presence of the bitter glucoside alone, but also to a bitterless principle. By care in manufacture the two glucosides are retained unimpaired, and a product of great therapeutic activity is produced. The adult dose is only 5 to 20 minims. The third preparation is an elixir of glycerophosphates of calcium and sodium, which in flavour resembles an after-dinner liqueur. Each ounce of the elixir contains 8 gr. of sodium glycerophosphate and 4 gr. of calcium glycerophosphate. We are also asked to state that reprints of papers on nargol and cupol are now ready, and are supplied to chemists for distribution to medical men.

Photographic Notes.

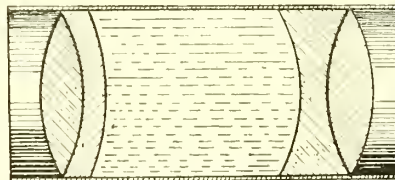
By a Pharmaceutical Camerist.

PHOTOGRAPHIC VADE-MECUM.

Under the title of the "Practical Photographer's Vade-mecum" Messrs. Cadett & Neall (Limited), Ashted, Surrey, have published a very useful pocket-book for photographers' use. On the inside of the front cover there is a view-meter by which the focal length of the lens registered for any required view is obtained, whilst in the back cover is fastened one of Lambert & Cadett's exposure-meters in which the slide-rule principle is employed. There is also a detachable exposure-record, a pocket-book containing many useful tables for photographers, and a pencil. The vade-mecum sells at 2*s.* 6*d.*

A NEW LENS.

Dr. Grun, of Southwick, Brighton, has at last made public the details of his new fluid-lens, which is claimed to be the fastest photographic lens yet invented. The illustration



given is taken from the United States patent specification, and shows the combination of two achromatic lenses, with an intervening space filled with cedar oil, the latter fluid being approximately of the same refractive index as the lenses. The idea of using cedar oil is taken from the oil-immersion lens used in the microscope, and with which pharmacists are fairly familiar. Fluid-lenses are not new; the panoramic water-lens brought out by Sutton is frequently referred to, but never much used. It is stated in *Photography* that a lens of 3 inches diameter is required to cover a lantern-plate, but if stopped down a much larger plate can be covered. Some remarkable results have been produced, such as taking photographs, with a quarter-second exposure, of a scene in a theatre, a minute exposure at midnight on a moonlight night, or a quarter-of-an-hour exposure on a pitch-black night. Dr. Grun has adopted a system of focusing by means of pegs working in holes, each hole being

graduated to a known distance, as focussing dimly-lit subjects otherwise is not easy.

HINTS FROM OTHER DEALERS

are always acceptable. I give extracts from two letters recently received which convey useful hints. *W. H. H.* (172/30) gives his views on plates and developers as follows:—

I have found that for copying or making enlarged negatives photo-mechanical plates give the best results, and customers I have advised to use them are more than pleased with the results. Chemists should not lose an opportunity of placing the various uses of plates before their customers. It is a mistake some dealers make of only having one developer, which cannot possibly suit all subjects, whereas, if several kinds are stocked and their special uses pointed out to the customer, he gets better results and thinks more of the dealer.

A FIXING-DISH

is the subject *W. S.* (179/30) writes about:—

Some time ago, under "Photographic Notes," a suggestion was made for a rim to be put in the fixing-dish so that the plate could rest firm downwards. This I have done for the last five years. In practice I employ pie-dishes for developing and fixing, and as these dishes can be had in a variety of sizes and shapes they are a great convenience. I wash negatives in a lavatory basin, regulating the flow by a wooden plug. For developing roll-films a pie-dish is very suitable.

CRISTOID FILMS.

I have been trying some of Sandell's cristoid films which were mentioned in the *C. & D.* some time back. I did not find any difficulty in carrying out the instructions, the novelty of being able to develop the whole spool together making the process much less tedious than it otherwise would have been. The pyrocatechin developer made from the following formula answers equally well for plates:—

Pyrocatechin...	...	...	1 oz.
Potassium bromide...	...	...	30 gr.
Sodium sulphite...	...	...	4 oz.
Sodium hydrate...	...	...	$\frac{1}{2}$ oz.
Distilled water...	...	...	1 pint

Store in the dark, and for use dilute 1 part with 4 to 5 of water.

DARK-ROOMS.

Dalbeattie.—D. Newall, 23 High Street.

Gillingham (Dorset).—W. Edgar Samways, The Squire.

Weston-super-Mare.—S. Taylor, County Drug-stores.

Veterinary Notes.

By M.R.C.V.S.

Indigestion in Cattle.

WHEN the numerous and frequently opposite causes which induce indigestion are considered, it still remains a fact that the ancient remedies, consisting of purgatives and salines, are of real value in the majority of cases. The youngster who has made but a poor living on rough forest land, with little grass and much coarse woody fibre as his food, is liable to a form of indigestion, for which the best treatment, in the first instance, is an aperient. When the stalled ox has been the round of the shows at Christmas, and been surfeited with good living, he must, if he is to be held over for another season, have a purge of a similar nature.

Experience taught our stockmen and cow-leeches these things ages ago, but they could give no reason for the faith that was in them. They were satisfied to know what was a good thing to give to animals, or for themselves to take. Now the board-school boy requires a reason for everything; and science, with laggard steps, comes in a few centuries late, with proofs of what his ancestors believed—nay, proved in their own way, by results extending over the lives of generations of men, and handed down from father to son, before the present era, in which experience counts for nothing; and everything is for the young, who show but scant respect for the accumulated knowledge of seniors, and

still less for traditions the wisdom of which is incapable of scientific demonstration.

In this matter of giving a bold aperient dose to cattle or horses suffering from indigestion arising out of wholly different diet and conditions of life, the old practitioners who survive may point with pride to the results of ten years' experimentation in the St. Petersburg Government schools of research. By a series of experiments, to only a few of which the space at our disposal will permit of reference, it has been proved that the digestive system of animals (including man) can accommodate itself to almost any change of diet, and subsist on the richest or the poorest of alimentary substances, provided only that the change is not made too suddenly. Well, we knew this. Our gluttonous ancestors knew it, when

Long and loud those Saxon gleemen,
Sang to slaves the songs of freemen.

Our horsemen, with their strange theories of humours, had found out, by observing many animals under their care, that those for whom a sudden change of diet was to be prescribed "did best" when an aperient was first administered. They gave their horses a physic-ball in spring and autumn; the origin of the custom may have been forgotten in many districts when people read nothing but a stale newspaper once a week, but they continued the practice until the new school of veterinarians (taught by medical men) promulgated the doctrine that a healthy animal needs no drugs. The bi-annual physicking fell into disuse, and as a result many more horses die of those *sequelæ* of acute indigestion than did so under the old régime.

The experiments at St. Petersburg proved that the composition as well as quantity of the gastric fluid is regulated by the nature of the food introduced into the stomach, but the numerous analyses show that the process is gradual. A legitimate deduction to be drawn from this is that removal of the ingesta and the excitation of the organs concerned in the complicated process of digestion will, as our forefathers believed, make ready for a change in a shorter time, and thereby facilitate the fattening of the ox, and the conditioning of the horse; or the reverse—the turning out to grass and suddenly reduced nitrogenous diet, as compared with that provided for the stalled animal. From its more purely veterinary aspect, rather than from the economic feeder's, this new light on digestion confirms the wisdom of preparation of the stomach and bowels for the sudden changes which the requirements of the farmer necessitate.

Students of the physiology of digestion are no doubt familiar with the case of the man St. Martin, and, at a later date, the woman Kütt, whose misfortunes, in possessing fistulous wounds through the abdomen into the stomach, were turned to such good account in the study of the digestive processes in the living subject. It was possible in their cases to ascertain the effect of the gastric secretion upon various foods, introduced in little bags, and withdrawn under varying circumstances and at different times. The ferment ptyalin, which is of so much importance in the salivary fluid of the mouth, was soon after recognised, and afforded additional proof of the need of thorough mastication and insalivation as a preliminary to gastric digestion. Our grandmothers insisted on our eating slowly; they had proved in their own way that it promoted digestion. Blacksmiths had found that horses "did" better if they rasped down irregular molars; they thought it was due to the finer comminution of the food, and knew nothing of ferments. It is now demonstrated that the act of grinding a particular kind of food in the mouth influences the character of the gastric secretion before the food reaches the stomach. This was ascertained by dividing the gullet of a dog and suturing the ends to the skin, so that in time, when the immediate inflammatory effects had passed off, the masticated food could be received into a vessel from the upper portion of the œsophagus, while the gastric secretions could be withdrawn from the lower portion.

The sympathy between the acts of eating and digestion in the stomach has always been insisted upon by observant persons, in or outside of the medical world, but we have here the most singular proof of their correlation to an extent not previously imagined.

The net result of the Russian school's experimental work is to confirm as facts what were previously well-supported

inferences. How can we make practical use of the information supplied in our work as prescribers for animals? My own answer to the question would be to continue to make good use of those things which have been proved to be serviceable in cases of indigestion, while waiting for better remedies. Among the more advanced veterinarians there is an increasing disbelief in medication; good old remedies have been thrown over because a scientific explanation was not immediately forthcoming. One of our most eminent veterinary surgeons recently expressed his distrust of opium and its preparations in cases of colic, and if he was correctly reported it would seem to be the duty of the vet. to look on and take notes of temperature and pulse—watch the case, as a lawyer might with a brief for some third party. Of what utility is such a man to the owner of the patient? It is unfortunately true that men of comparatively little learning often enjoy a greater average measure of success as animal-doctors than those leaders who have lost their way in a maze of professional agnosticism. To discard the old loves without good reason is notoriously unwise in other affairs, and he who would progress as well justify his existence as a practitioner of veterinary medicine should be

The first by whom the new is tried,
The last to lay the old aside.

The prescriptions in that excellent little work "Veterinary Counter-practice" have been largely instrumental in building up sound and lasting reputations: they have evidently been supplied by men who have proved their efficacy.

Reviews.

The "Ideal" Office Reckoner. By J. G. INGLIS. Pp. 900. 3s. 6d.

AS a time-saving device this book will prove a boon to any a hard-pushed business man. It contains twenty sets of tables and 300 000 calculations, the latter beginning at $\frac{1}{16}$ th of a penny, and rising by pence up to 3*l*. The book is of a handy size ($7\frac{1}{4} \times 4\frac{1}{2} \times 1\frac{1}{2}$); the type is bold and clear, and is therefore easy for reference. The tables for the conversion of British currency into its foreign equivalent, and metric-system tables of weights and measures, with their British equivalents seen at a glance, strike us as being especially useful.

Sell's Directory of Registered Telegraphic Addresses, 1902. Henry Sell, 167 Fleet Street, E.C. Subscribers, 18s.; non-subscribers, 21s.

THIS handy and ever-healthy annual in the crimson boards familiar to most British commercial houses, is a monument of labour, patience, and accuracy. The present volume contains nearly 50 000 alterations, comprising cancellations, new registrations and emendations in postal addresses, telephone numbers, trade descriptions, and so forth. Mr. Sell, who proudly refers to his publication as a "Directory of the Upper Ten Thousand of the Commercial World," not only supplies the busy business man with reliable information concerning the telegraphic designations of the leading commercial firms in London and the provinces, but his book includes a list of foreign consuls.

Modern Business Methods. (1) *The Home Trade.* (2) *The Import and Export Trade.* By Messrs. F. HOOPER and J. GRAHAM. $8\frac{1}{2} \times 5\frac{1}{2}$ in. Pp. 515. London: Macmillan & Co., Limited. 2s. 6d. and 3s. 6d. respectively.

THESE are two manuals designed to meet the requirements of the commercial courses of the various British Chambers of Commerce. The authors are men of practical experience Mr. Hooper being Secretary of the Bradford Chamber of Commerce, and Mr. Graham inspector for commercial subjects to the West Riding County Council. The first book, dealing with the home trade, gives some capital advice to young men entering commercial life. It commences with the duties of the office-boy, with a description of his utensils, the copying-press and the letter-book, and gradually progresses to the higher parts of the subject including chapters on the medium of exchange, banks and banking, bills of exchange, and so on. The companion volume aims at being

a guide to the whole of the operations connected with the export and import of every class of goods. On reference to it an exporter may learn how to make the necessary calculations so as to invoice his goods to his foreign customer in detailed measures and weights that he can understand. This point has always been a source of weakness to British foreign trade, and the book is specially designed to meet these difficulties. It also contains chapters on foreign exchange, marine insurance, trade-routes, ships and charters, &c. In short, it may be recommended as a reference-book to business men and a text-book to commercial students.

Laboratory Companion to Fats and Oils Industries. By Dr J. LEWKOWITSCH, M.A., F.I.C. Pp. xii + 147. London: Macmillan & Co. 6s. net.

IN this work the author, who is well known as a fixed-oil expert, has summarised in tabular form all the available numerical values necessary in the examination of the fixed oils and fats and certain allied products. Part I. bears the somewhat clumsy title, "System and Examination of Fats and Waxes." It deals chiefly with the properties of the acids and glycerides of ordinary oils, the chief analytical figures being set out in tables. Part II. is the chief portion of the work, consisting of a series of tables giving the so-called constants and variables of most of the known fats and fixed oils. The author here gives the figures without comment, and without indicating the source in the majority of cases. Considering the mass of unreliable work—due chiefly to the examination of impure samples—which may sometimes result in the publication of analytical figures, we think it would have been wiser to have specified the source of his figures, as, we believe, was done in the author's more ambitious work on the same subject. Not all the figures here given can be considered as satisfactory. For example, under cod-liver oil the iodine number is the solitary figure 167. That normal limits of a fairly wide character should have been given is emphasised by the figures given for the iodine number of the mixed fatty acids, which have a fairly constant relation to the same figure for the oil. The figures for the acids are given as 130.5 to 170 (*Journ. Soc. Chem. Industry*). We find figures for a sample of brown shellac which indicate the examination of only one sample, and that almost certainly an adulterated one. As a help for laboratory-work such figures as these are valueless. The tables dealing with commercial products of oils, &c., are very full, and will be found of great use to the specialist in this department. A number of sp. gr. and other tables at the end of the book enhance its value for laboratory use.

Diet: in Relation to Age and Activity. By Sir HENRY THOMPSON, F.R.C.S., M.B. Pp. 126. London and New York: F. Warne & Co. 2s. 6d. net.

THIS little work is divided into Parts I. and II., Part I. being a reprint, with a few additions, from the May, 1885, edition of *Nineteenth Century*. The subject dealt with is one which appeals, or should appeal to all. Early in the first part a decided blow is given to so-called "Vegetarians," in which the writer, without running down "Vegetarianism" when fully carried out, points out how very few, if any, are real vegetarians. Flesh abstainers, rejecters, or avoiders they may be, but vegetarians they are not. It is strongly pointed out how absolutely necessary it is for one to regulate one's diet, and the amount of food taken, by the amount of exercise, in one form or another, one takes. Also how beneficial it is, the older one gets, to regulate the intake (of food), owing to decline of activity by age, otherwise the result can only be corpulence, with its resulting effect on the heart and lungs, neither of which can act easily owing to the gradually gathering fat around them. Coming to diet itself it is pointed out that often flesh diet is adopted too early in life, when cereal foods, fruits, and vegetables would be more beneficial. Temperature is also taken into account showing how useless it would be for a native of Iceland to attempt to exist on the food taken by a dweller in India and *vice versa*. Simplicity and variety in diet are shown to be desirable and even important if one wishes to continue healthy and avoid corpulence, but special stress is laid on the fact that a proper mode of eating is equally important. "Early morning tea" finds favour with the author. A very good system for meals is included, and an excellent "diet-table."

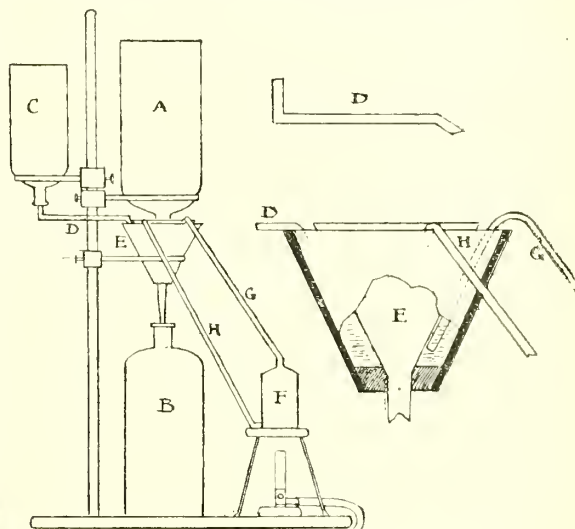
The Flower-cure.

THE pharmacist often gleams much marvellous information and always gets a preponderance of amusement from the lay Press when it attempts the technical. In a recent issue of the *Red Letter* an article points out to a purblind public the complete assortment of marvellous medicines "growing in their own backyards." Why should the infants of Bethnal Green or Limehouse suffer from sore and inflamed eyes when all their devoted parents have to do is to pluck the common wallflower which is shedding its perfume and luxuriance in their backyards, and make an infusion of the leaves for the permanent relief of their hydrophthalmic offspring? Then "lily of the valley flowers, if chewed, will improve the memory to a marvellous extent." So saith the *Red Letter* oracle, and doubtless many chemists will now put some of their clients on a course of lily-of-the-valley chewing in order to induce recollections of "that little bill" so long unpaid. The perfume, we are told, may easily be preserved by placing a layer of the flowers on top of a layer of cold-cream, and "each day replacing the old flowers with new ones." The inhalation of the perfume which the cold-cream assimilates will cure the most violent headache. It is too bad not to specify the formula for the cold-cream, which is one of the factors in the production of so valuable an antipyretic. There are so many cold-cream formulas, and one might use the wrong one. The giddy Harriets of Whitechapel and Mile End need no longer pine for the beauteous complexion of their Mayfair sisters, for they have merely to cull the blue or yellow lupin (from the backyard), and make a decoction of the flowers. This will "clear all pimples, spots, and freckles from the face, and make the skin smooth and clear." The same result may be obtained by washing the face with the juice of the leaves of the elm-tree. The leaves of the pine boiled in vinegar and rubbed on the gums cure toothache. The kernels of the little nuts that grow on pine-trees (which, along with the elms, are reared, of course, in the backyard) are good for the lungs and help to cure consumption. An apoplectic subject will be restored to health by a necklet of mistletoe-twigs. The black-currant bush is a whole materia medica in itself. The fruit makes a jam which is invaluable for sore throats; smelling the leaves helps to cure a headache, while a decoction of the leaves makes an excellent hair-dye. "If you boil the unripe fruit and pods of the bean," writes the *Red Letter* Esculapius, "you will obtain a decoction that, when drunk, will make you dream." This is the solitary statement made with which we are entirely in agreement. We are quite prepared to believe that the decoction will produce as successful a nightmare as anything that can be assimilated. Maiden-hair ferns cure insanity when chewed, and an infusion makes the hair grow strong and thick. But the best hair-restorer in the world (down, Tatcho!) is the juice of the common stinging-nettle. Let the bald one but gather lightly some green nettles, pound them in a mortar, "and rub the juice thus obtained well into the roots of the hair." The result, we are told, will be a luxuriant and costless growth. Tea made from the dried leaves of the ash-tree is an infallible anti-fat remedy, and the best way to clean the teeth is to chew unripe brambles. The green fruit not only cleanses the teeth but "benefits the enamel." An unsurpassable embrocation for the athlete is made by soaking willow-leaves in wine or brandy. The ashes of burnt willow-bark made into a paste with vinegar are a speedy cure for warts, corns, and all hardness of the skin. Hence, we suppose, the inferior salicylic-acid preparations of common chemists. Verbena-tea is equally good for a sore throat or for preventing the hair from falling out. A decoction of cowslip-root cures insomnia, inducing pleasant dreams. The roots boiled in ale make "the finest nerve-steadier obtainable." The rain-water found in the hollows of beech-trees is excellent for skin-eruptions and dryness of the scalp. Primroses cure headache and heal wounds. Marigolds raise drooping spirits and cure bee-stings. Wild mustard is good for rheumatism. And "they all cost nothing." Verily, there are more things in your own backyard, O sufferer, than are dreamt of in our materia medica.

Hot Filtering.

BEING considerably indebted to the "tips" column of your paper, and noticing in the *DIARY* for 1902 that a suggestion regarding hot filtering would be acceptable, I beg to offer for your acceptance a sketch and explanation of a "home-made" arrangement which has worked well and been in constant use for several years. At first glance it may seem somewhat complicated, but in reality the whole thing is simplicity itself, and if any one of your thousands of readers will take the trouble to set up the apparatus I feel certain he will find himself well repaid for his labour, since the filter requires practically no attention beyond an occasional glance at the reservoir.

The apparatus consists of a jacketed funnel, shown in part section in the sketch marked E, and a circulating boiler, F. For the inner (filtering) funnel I used a deeply fluted glass one 7 inches



in diameter, and for the outer, or jacket, a wedgwood which had lost its stem and seemed made on purpose. These were joined together by drilling a bung, slipping it over the stem of the glass funnel, trimming the sides to roughly fit the bottom of the wedgwood, and cementing the whole together with a stiffish paste of litharge and glycerin, taking care to keep the top of the glass a little above the top of the wedgwood. The cement takes about twenty-four hours to set, and becomes very hard, resisting the action of hot water perfectly. G is a piece of glass tubing, about 3 inches longer than the depth of the jacket, bent at a short angle at such distance as will allow the longer arm to nearly reach the bottom of the jacket. H is a tube of similar bore, 4 inches long, bent in the middle to a similar angle to G.

The next consideration is the circulating boiler F. A Merck's chloroform-flask (tin) was my first boiler, and when that rusted through, a 1-inch oil-of-lemon copper flask was substituted. A short piece of brass tube was soldered into the top, and a longer piece, about 4 inches, into the side, close to the bottom. The tube used was an old clinical-thermometer case—cap for the top and longer part for the bottom. Now join up G and H to top and bottom tubes respectively with suitable lengths of rubber tubing, fill the jacket with water, and syphon the boiler full, refilling the jacket with fresh water; place the boiler over the hunsen, and when the water in the jacket is at the required temperature check the gas-supply, as a very small flame will keep the water hot when once circulation is established.

C D is a simple device for replacing water lost by evaporation the right-angle end of D being inserted into a tightly fitting rubber stopper which closes the neck of C, and the other end dipping, about an inch into the jacket. C, of course, is filled with water and placed in position, after refilling the jacket as above described. A is a Winchester of the fluid to be filtered, so placed that the lip of the bottle is below the level of the filter-paper, thus keeping the filter full until the bottle is empty. A and C may be secured in position by slipping another ring over each and screwing tightly to standard.

H. J. HOBDEN, Christchurch, N.Z.

Festivities.

GRIMSBY CHEMISTS' DINNER.

The annual meeting and dinner of this Association was held at the Oberon Hotel, Grimsby, on April 10, Mr. R. Cook (President) in the chair.

The Secretary (Mr. H. W. Colley), in presenting the annual report, stated that the balance-sheet for the year showed a balance in hand of 4*l.* 11*s.* 6*d.* In reply to a Federation circular the committee had strongly expressed the opinion that all weed-killers containing scheduled poisons should be only sold by qualified chemists. It had also been suggested that wherever it was possible for higher-grade schools or technical-instruction committees to arrange suitable classes for the education of assistants and apprentices such classes should be promoted, and students should be encouraged to apprentice themselves in such places. The following officers were then elected: President, Mr. R. Cook, J.P.; Vice-President, Mr. C. Willson; Treasurer, Mr. J. Hawdon; Secretary, Mr. Herbert W. Colley; and Council, Messrs. Palmer, J.P., Carter-White, Dewing, North, and Sneath, with the officers mentioned.

Mr. H. W. Colley opened a discussion on the question of making the meetings more attractive, and the matter was relegated to a committee to report. Mr. C. Willson gave notice of his intention to move an alteration in one of the rules, and after further routine business had been transacted the company adjourned to the dinner.

The President occupied the chair, and about twenty were present. After the loyal toasts had been submitted from the chair Mr. Hawdon proposed "The Grimsby and District Chemists' and Druggists' Association," to which

Mr. T. D. Sneath first responded. He said he had been associated with the Association since its formation in 1894. It had been said that there was a lot of jealousy among the chemists of the town, but he most emphatically denied that statement. They had not always agreed upon all points, but they had had some most enjoyable meetings, and as he looked back on his connection with the Association, he could recall some very pleasant gatherings.

Mr. O. Dewing also replied. Mr. G. R. Cook gave "The President and Members of the Council," in which he spoke in eulogistic terms of the President, the Vice-President (Mr. C. Willson), and individual members of the Council. The President, in reply, said that during his thirty-one years of pharmaceutical life, he had always had the greatest pleasure in assisting his brother pharmacists. Mr. O. Willson said the Association was inaugurated in the cholera year, and since that time everything had been done to promote the interests of the chemists of the town, and also to ensure the safety of the public, to improve legislation, and to protect chemists from the inroads of outside piracy. Mr. S. J. North, who responded on behalf of the Council, said that chemists should be a more united body. Dr. John Atfield once said "It is the pharmacists and druggists themselves who retard their own advancement by their want of unity, and their consequent want of power, and their resulting timidity." Mr. North then dropped into poetry, as follows:—

We have a worthy President, and the Vice a good compeer,
And each time that we toast them we raise a hearty cheer,
For we're satisfied that they would be difficult to beat;
So that is why we're anxious that each retain his seat.
When "Io" died of potassium and gave her life for our good,
She improved the genus Homo through the medium of his blood.
We do not emulate "Io" by dying in the cause,
But as your selected Council, we both watch and keep your laws;
In our pharmacutic kinship we have a cause at heart,
And may the years be numerous ere from it we depart,
That our shadows will no'er grow less, then there is nought to fear
In the reign of Edward the Seventh, and the Coronation Year.

"The Town and Trade of Grimsby" having been proposed by Mr. C. Willson, and replied to by Councillor Carter-White, Mr. H. W. Colley proposed "The Pharmaceutical

Society." In the course of his speech Mr. Colley commended Mr. R. A. Robinson, the newly co-opted member of the Pharmaceutical Council, to the Association. He trusted Mr. Robinson would see to the safeguarding of the title to the qualified chemist. He considered it disgraceful that the Pharmaceutical Society had allowed Boots (Limited) to take the name of cash "chemists" for so many years in defiance of an Act of Parliament. The President, in his reply, made an appeal on behalf of the Benevolent Fund. "The Visitors" and "The Ladies" were also toasted. During the evening songs were given by Messrs. Palmer, North, Carter-White, Cook, and others.

STAFFORDSHIRE CHEMISTS' DINNER.

The annual business meeting and dinner of the North Staffordshire Chemists' Association were held at the Alexandra Hotel, Stafford, on April 10, when a representative gathering of members and visitors assembled under the Presidency of Mr. John Averill, J.P. All the officers were re-elected at the business meeting, Mr. W. Oldham, J.P. (Burslem), being made a Vice-President, and reports from the Secretary and Treasurer were received and considered satisfactory. A vote of condolence with the widow and family of the late Mr. William Martindale was passed.

At the subsequent dinner the visitors included Mr. G. T. W. Newsholme, Mr. W. S. Glyn-Jones, Mr. W. G. Cross, Dr. B. H. Paul, Alderman F. Greatrex (Deputy-Mayor), Alderman P. Bridgwood, and Mr. J. J. Gibson.

The loyal toasts having been given from the chair, Mr. Edmund Jones (Hon. Secretary) proposed the toast of "The Pharmaceutical Society," in responding to which Mr. Newsholme alluded to the great increase in the number of provincial Associations, and said he had often heard that Association referred to as an example that might be followed. With regard to the employment of paid agents, as suggested by Mr. Averill, he pointed out that the Divisional Secretaries could do much in this direction. He thought that every loyal member of the Society would only be too glad to call upon chemists and show them the advantages of the Society. They ought not to be satisfied until the 6,000 members on the Register had been doubled.

Mr. Glyn-Jones and Dr. Paul also responded, the former saying he was convinced that a great deal of the awakening in the craft was due to the establishment of local Associations.

Mr. Cornwell submitted the health of the President, and Mr. Averill, in reply, thanked the members for having elected him President each year during the five or six years that the Association had been in existence, and also for the compliment they had paid him in holding that gathering at Stafford, it being usually held at either Hanley or Stoke. He thought they might claim to have done some good and beneficial work for the craft. Referring to the Act of 1868 Mr. Averill said it was passed for the safety of the public, and he thought the time had arrived when the chemist himself should have some protection. (Applause.) They wanted to urge the Council of the Pharmaceutical Society to take some decisive action so that the exact position of chemists and druggists might be defined. He was in favour of the division of the Minor examination, believing that if they were to examine a man in practical work first, and give him a little more time to study scientific work, there would not be so many failures as at the present time.

Mr. Gowen Cross proposed the toast of "The Local Association," to which Mr. Weston Poole replied, suggesting that they should strive as an Association to secure direct representation on the Committee which had been formed to promote the scheme for the extension of higher education in North Staffs.

READING CHEMISTS' ASSOCIATION.

A *conversazione* was held at Reading College on April 9. There was a fair attendance, and a very pleasant evening was spent. Mr. F. F. Tunbridge gave a demonstration with the x-rays, and Messrs. Cardwell and Tnnbridge showed some good lantern-slides. Other objects of interest were exhibited by various members, and a musical programme was rendered by the ladies.

A BAYSWATER SMOKER.

Another of the *recherché* smoking-concerts which are given periodically by the Western Chemists' Association was held at the Westbourne Restaurant, 1 Craven Road, W., on Wednesday evening, April 16, with the President of the Association (Mr. W. S. Galliver) in the chair. There was a large attendance, and the programme was as high-class and as enjoyable as ever. The musical arrangements were under the direction of Mr. Henry Prenton, and with him were associated Messrs. Elliston Webb, Frank Peskett, and others. The tenor solos of Mr. Elliston Webb, who is an old favourite at these gatherings, were even more feelingly rendered than ever, while Mr. Frank Peskett, besides singing the baritone parts in the trios, was an efficient accompanist. The humour was provided by Mr. George Thatcher, whose songs "Will he?" and "Coronation Day" were especially applauded. Mr. Prenton himself is possessed of a pretty wit, and is, besides, a *siftour* of no mean calibre. The violin solos of Master H. Gennari created considerable enthusiasm.

Legal Reports.

Trade Law.

A Flashlight.—At the County of London Sessions on April 11, Mr. S. H. Benson, the well-known advertisement-contractor, appealed against a conviction by Mr. Sheil, Magistrate at the Westminster Police Court, for unlawfully exhibiting a flashlight so as to be visible from Albert Gate, and to cause danger to the traffic in the thoroughfare, contrary to the London County Council by-law. The appellant held a lease for the outside of No. 1 Sloane Street, Albert Gate, W., for the purpose of displaying advertisements thereon. The flashlight against which the complaint was made was an electrically lighted sign advertising "Bovril." The name was duplicated in red and white lights, and at intervals it became visible and invisible with alternate changing to the red and white lights. Evidence was given by omnibus-drivers and others to the effect that the sudden transition from a brilliant red illumination to darkness, and then the re-flashing of the sign by ordinary electric light, tended to frighten horses and to make crossing dangerous to pedestrians. The Bench decided that it was a flashlight, and disallowed the appeal, with costs.

The Duty of an Apprentice.—At Canterbury County Court recently, an action by a grocer's apprentice claiming 12l. 3s., alleged to be due as wages, was heard by Judge Sir W. L. Selffe. It appeared that the boy was at first put to help in the cash department continuously three days a week. He did not like the work, and, after consulting his father, refused to serve in the cash office any longer, with the result that his employer stopped his wages to the amount claimed. In giving judgment Sir W. Selffe said the plaintiff was entitled to recover his wages subject to any claim defendant succeeded in proving against him for not fulfilling his part of the contract. The words of the contract were that the plaintiff was "to obey gladly the lawful commands of his master," and for the defence it was stated that plaintiff had not done that at all, particularly in respect to the cash-room. It was ridiculous to suggest that this was not a lawful demand on the part of the employer. It was clearly the duty of an apprentice to take the cash when required, and it was also plainly part of the business which he was to learn. He did not suggest that the employer should require the apprentice to put in all his time at the desk, because he would not then learn the business of a grocer. It was plain that the boy declined to do his bidding, but the employer was wrong in stopping his wages, and he gave judgment for the plaintiff for the amount claimed less 2l. for damages which the employer had satisfied him he had sustained through the boy failing to do his lawful commands.

High Court Cases.

In the King's Bench Division on April 11, Professor Lucian Edward Henry, an author, sued Mrs. L. H. Richards, the wife of Mr. John Morgan Richards, proprietor of the *Academy and Literature*, for 94l. 15s., alleged to be due in respect of the purchase of a manuscript of a work entitled "Stray Thoughts." After a long hearing Mr. Justice Wright found for the defendant.

Stamp Act, 1812.

A REVENUE SUCCESS.

At the Mansion House Police Court last week, before Mr. Alderman Vaughan Morgan, the Commissioners of Inland

Revenue summoned Mr. John Morgan Davis, chemist and druggist, 89 Bishopsgate Street Without, for exposing for sale on November 13, 1901, a bottle of compound syrup of hypophosphites which was not stamped as required by the Act, also for selling on November 18 a bottle of IXL corn-paint which was also liable to duty. Mr. Dennis, who appeared for the prosecutors, stated that the syrup was labelled in such a manner as to recommend it for the cure of certain ailments, and he submitted that the letters IXL for the corn-paint could only mean a recommendation. For the defence Mr. Meyer explained that the label for the syrup merely contained quotations from medical works in regard to the therapeutic use of the hypophosphites, and the syrup was not recommended at all. He submitted with reference to the corn-paint that IXL was used generally by Mr. Davis in his business on toothbrushes and other articles, so that it did not refer exclusively to the corn-paint. After hearing the evidence Alderman Vaughan Morgan stated that he considered both offences were more technical than wilful, and while finding the charges proved would only impose the least penalty possible, 2l. 10s. and 2s. costs in each case.

Sale of Food and Drugs Acts.

CAMPHORATED OIL.

In the Aberdeen Sheriff Court on April 10, William Robertson, general merchant, Colpy, Culsalmund, was charged with selling a quantity of camphorated oil which, on analysis, did not prove to be of the quality of the article demanded. Robertson pleaded guilty, and the Procurator-Fiscal (Mr. Maclellan) said it was the wholesale dealers who were really to blame, as they sold the oil to Robertson. Sheriff Henderson Begg ordered defendant to pay 22s., the costs only.

At Birmingham on April 11, Thomas Wakefield, chemist and druggist, of Six Ways, Brookfield, was summoned for selling camphorated oil which contained only 86 per cent. of the B.P. quantity of camphor required. Defendant admitted that he sold the oil, which he made himself, but urged that the camphor had not had time to dissolve properly when he sold it to the health inspector. The presiding Magistrate observed that with his long experience defendant should have seen that the camphor was dissolved before supplying any customer. The Magistrates thought there had been no intention to defraud, and in the circumstances he would only be asked to pay the costs.

Bankruptcies and Failures.

Re WILLIAM JOHN TRYTHALL, Cusgarne Gwennap and Carnon Chemical-works, Perranwell Station, Cornwall, Chemical-manufacturer.—The adjourned public examination of this debtor was held at Truro on April 12, and after further declarations had been made debtor was allowed to pass.

Re HERBERT HENRY PRESBURY, trading as Moody & Catterns, at 73 Church Street, Camberwell, S.E., Pharmaceutical Chemist.—This debtor attended on April 11 at the London Bankruptcy Court for public examination upon accounts showing debts 206l. 18s. 4d., against assets 99l. 3s. 4d. In the course of his evidence the debtor stated that he had carried on the above business for fourteen years. Between 1895 and May, 1900, he was also interested in the manufacture of a chemical food known as Vitalia. At the latter date that business was transferred to Vitalia (Limited), of which he had since acted as manager at a weekly salary of 3l. He ascribed his failure and insolvency to the fact that he had neglected the business of "Moody & Catterns" in order to devote his time and attention to Vitalia. The examination was concluded.

Re EDWARD HOWDALL HASSELEY, 55 and 57 Pevensey Road, late of 1 Eversfield Place and 33 King's Road, East Street, all St. Leonards-on-Sea, Chemist and Druggist.—The public examination of this bankrupt was held at Hastings Bankruptcy Court on April 15. Particulars of debtor's affairs were given in last week's issue, page 574. In examination debtor stated that he gave up his chemist's business on January 21, 1901, in consequence of being pressed by Mr. Atkinson. He sold the business to Mr. John Smith for 1,000l. After giving up the chemist's shop

he kept a cycle-business, but he did not understand it, and hoped to be able to sell it as a going concern. He had kept books, but not sufficient to show his position, and had no cash-book. The examination was adjourned until May 13.

Re WILLIAM ARMSTRONG LYNASS, 5 Ann Street, Belfast, Pharmaceutical Chemist.

A LONG list of creditors has been filed in this case, the amounts in a few cases only being stated. The following are creditors:—

Airators (Limited), London	Lloyd, T. Howard, & Co., Leicester (16 <i>l.</i> 18 <i>s.</i> 1 <i>d.</i>)
Ashton & Parsons (Limited), London	McConkey & Co., Belfast
Baiss Brothers & Stevenson (Limited), London	McMullan, T., & Co., 10 <i>l.</i>
Beaumont & Co., Edinburgh	Mansell, Hunt & Gatty, London
Bishop, Alfred, & Sons, London	Meggesson & Co. (Limited) (11 <i>l.</i> 13 <i>s.</i>)
Breidenbach & Co., London	Millar, A., & Co., Belfast
Bristol Castor Oil Company, London	Mi-Mosa Company, London
Burroughs Wellcome & Co., London	National Cash Register Company, Belfast
Bush, W. J., & Co. (Limited), London	Nicholl, I. W., Belfast
Butcher, W., & Sons, London	Osborne, Garrett & Co., London
Canwal (Limited), Bristol	Peacock Ovaline Soap Company, London
Cantrell & Cochrane, Belfast	Pindar & Co., London
Clotworthy & Co. Belfast	Poppelreuter, W., Manchester
Cohen, I. & M. (12 <i>l.</i> 4 <i>s.</i> 4 <i>d.</i>)	Queleh, Henry, London
Cork Company (Limited)	Reuter, R. J. (43 <i>l.</i> 19 <i>s.</i> 8 <i>d.</i>)
Critchley, T., Blackburn	Sen Sen Company, London
Fannin & Co., Belfast	Shirley Brothers (11 <i>l.</i> 13 <i>s.</i>)
Flack, H., London	Spatala Publishing Company, Boston (U.S.A.)
Gibbs, D. & W., London	Thacker & Hoffs (Limited), Dublin (74 <i>l.</i> 8 <i>s.</i> 10 <i>d.</i>)
Gilbertson & Sons, London	Timpson, J., & Co. (Limited), London
Giles, Schlacht & Co., Bristol	Tanbridge & Wright, Reading
Goodrich, B. F., Co., London	Tyrer, T., & Co., London
Harrington & Co., Cork	Vigo, Jules, & Co., London
Harrison & Waide, Leeds	Warrick Brothers, London
Hatrick & Co. (Limited), London	Willkinson, J., & Co., Manchester
Haywood, J., Nottingham	Wood, Vincent, London
Hewlett, C. J., & Son, London	Woolley, J., Sons & Co., Manchester (18 <i>l.</i> 11 <i>s.</i> 1 <i>d.</i>)
Horhek's Milk Company, London	Yost Typewriting Company, Belfast
Idris & Co. (Limited), Liverpool	
Jenner Institute, London	
Leslie, P. A., & Co. (67 <i>l.</i> 5 <i>s.</i>)	

The statement of affairs shows gross liabilities 3 333*l.* 4*s.* 4*d.*, and assets (less preferential claims), 745*l.* 19*s.* 6*d.*. At a meeting of creditors held at the offices of Mr. D. McGonigal, solicitor, 10 Donegall Street Belfast, on April 8, debtor made an offer of 3*s.* 4*d.* in the pound, payable in three months, which was unanimously accepted.

Re JOHN LEACH, the elder, Crawley, Sussex, Pharmaceutical Chemist.—The summary of this debtor's statement of affairs shows gross liabilities 1,888*l.* 12*s.* 5*d.*, of which is expected to rank 1,602*l.* 0*s.* 8*d.*, and net assets 5*s.* 8*d.*. The cause of failure is alleged by the debtor to be "general falling off in trade." He states that he only became aware that he could not pay his debts in full last August. The Official Receiver's observations show that, according to bankrupt's statement, he has been a chemist in Crawley since 1859, and carried on business at No. 1 The Terrace there for thirty years up to September 7 last. On that date he sold the business to his eldest son for 1,200*l.*. The son paid 200*l.* in cash, and took over the mortgage on the business amounting to 1,000*l.*, his reason for selling the business being that he was pressed by the executors of a creditor for money lent to repay them a sum of 200*l.*. His son had managed the business for six years, and had advanced him moneys. In August last he sold his furniture, but a creditor took garnishee proceedings and received 178*l.*, while he received 70*l.* only. The liabilities include 527*l.* due to his son, 220*l.* of which is said to be for money lent, 307*l.* wages, and three other claims amounting to 503*l.* for money lent. The partly secured creditor holds a policy on the bankrupt's life for 503*l.*. The deficiency account shows:—Net profit arising and carrying on business from March 27, 1901, to September 7, 1901, when the business was sold after deducting the usual trade expenses, 48*l.* 5*s.*; deficiency, 1,601*l.* 15*s.*. Total amount accounted for, 1,657*l.*. Excess of liabilities over assets on March 27, 1901, 1,400*l.*. Household expenses of self and wife's illness and funeral, 150*l.*. Interest on loans and premium on policy, estimated 100*l.*. Total amount accounted for, 1,650*l.*.

Gazette.

Partnerships Dissolved.

Forshaw, T. G., and Snow, C. M., chemists and opticians, Bradford, under the style of Forshaw & Snow.

Parkinson, R., Jackson, J., and Wilson, A., chemists and druggists, Bradford, under the style of Harrison, Parkinson & Co.

Sherley, J., and Still, J. E. L., veterinary surgeons, Twickenham and Teddington, Middlesex, and Kingston and Surbiton, Surrey, under the style of Sherley & Still.

The Bankruptcy Acts, 1883 and 1890.

ADJUDICATION.

Roberts, Joseph Richard (trading as Thomas Roberts & Son), Southport, carrying on business at Bankhall, Liverpool, chemical manufacturer.

New Companies & Company News.

WALTON-ON-THAMES MINERAL-WATER COMPANY (LIMITED).—Capital 1,000*l.*, in 1*l.* shares. Objects: To adopt an agreement with F. J. Furnivall, and to carry on the business of mineral-water manufacturers, etc. Registered office, High Street, Walton-on-Thames.

MILL END PAPER MILL (LIMITED).—Capital 5,000*l.*, in 1*l.* shares. Objects: To acquire the lease of the Mill End Paper-mills, Rickmansworth, and to carry on the business of paper-manufacturers and merchants, dealers in chemicals, drugs, and other materials, etc. Registered office, Sunnyside, Rickmansworth, Herts.

DAVID DREGHORN (LIMITED).—Capital 50,000*l.*, in 1*l.* shares. Objects: To acquire and carry on the businesses of manufacturers of and dealers in soaps, glycerin, blues, blacklead, metal polish, residual products, and general drysaltery carried on by D. Dreghorn at Smith Street, Kinning Park, Glasgow, and by Chancellor, Walker & Wallis (Limited), at Humber Soap works, Hull. The first directors are D. Dreghorn, G. B. Roger, and J. Crawford. Qualification, 250 shares.

CRAIG SHARP (LIMITED).—Registered in Edinburgh. Capital 2,000*l.*, in 1*l.* shares. Objects: To manufacture and deal in paints, pigments, and lacquers of all sorts, including anti-fouling and anti-corrosive paints and lacquers, chemicals and chemical compounds of all descriptions. The first directors are R. C. Sharp, John Walker, and A. Day. Qualification, 50*l.*. Remuneration as fixed by the company. Registered office, 177 Maxwell Road, Glasgow.

THERMAL STORAGE (LIMITED).—Capital 12,000*l.*, in 1*l.* shares. Objects: To acquire patents, inventions, and the like relating to thermal storage, and to carry on the business, among other things, of chemists and chemical manufacturers. Minimum cash subscription, 4,000 shares. The first directors are J. E. Hodgkin, W. East, and F. Levick. Qualification, 100 shares. Remuneration not less than 250*l.* per annum, divisible. Registered office, 17 Victoria Street, S.W.

DIGIT DISINFECTANT COMPANY (LIMITED).—Capital 10,000*l.*, in 1*l.* shares (6,000 preference). Objects: To acquire a certain secret process of manufacture of disinfectants and sanitary compounds from John Buchanan, of Dudmanstare, Berry Brow, Yorkshire, to adopt an agreement with the said vendor, and to carry on the business of manufacturers of and dealers in disinfectants and sanitary preparations. No initial public issue. The subscribers are to appoint the first directors. Qualification, 100*l.*. Remuneration, 200*l.* per annum, divisible.

SACCHARIN FABRIK A. G. VORM, FAHLBERG, LIST & CO., Salbke-Westerhüsen, near Magdeburg.—Fahlberg, List & Co., has been converted into a joint stock company with the above title with a capital of 3,000,000*m.* Dr. Fahlberg, the former proprietor, has been appointed general director of the new company.

CARNOS (LIMITED).—An extraordinary general meeting of shareholders of this company, to which creditors were invited, was held last week at the offices of the company, 8 Warwick Court, Gray's Inn, W.C., for the purpose of receiving a report from the liquidator, Mr. H. Crosby. It was stated that negotiations were pending for the sale of the

The *Journal of the Royal Agricultural Society of England* is in future to be an annual volume, instead of a quarterly. The alteration seems to indicate retrogression.

French patents, and also with regard to the disposal of the English business as a going concern. Since August the liquidator had carried on the business without loss, and the probability was that if the negotiations came to a successful conclusion the creditors would be paid in full. A resolution was carried authorising the liquidator to carry on the business for a further three months if necessary.

KODAK (LIMITED AND REDUCED)—In the Chancery Division of the High Courts on April 15, before Mr. Justice Buckley, a petition for reducing the capital of this company was presented. The company having sold to an American company all but its English assets, the consideration being shares of the purchasing company amounting to 1,250,000%, it was proposed that these shares should be distributed as capital to the shareholders in the Kodak Company, with the exception of the 250,000% ordinary shares held by the Eastman Kodak Company. The result would be that all the shares in Kodak (Limited) would be extinguished except these 250,000, so that the Kodak Company would be reduced to a capital of 250,000%. After some consideration Mr. Justice Buckley sanctioned the proposed reduction.

Birth.

JOSEPHS.—On April 9, at 68 Mildmay Park, N., the wife of Mr. Philip Josephs, jun., of a son.

Marriage.

CROFTS—BUTLER.—On April 8, at St. Mary's Church, Walsall, John Henry Crofts, chemist and druggist, to Heler, daughter of Mr. William Butler, Walsall.

Deaths.

BURN.—At Forres, N.B., on April 7, Mr. John Burn, chemical-manufacturer. Mr. Burn was the proprietor of the North of Scotland Chemical works, which he acquired from his father-in-law, Mr. J. T. Wilson. Mr. Burn entered the Town Council in the early seventies, and ultimately became Magistrate and Provost, filling the latter office for nine years. He was also Chairman of the School Board, Anderson's Governors, Cluny Hill Hydropathic, and Water Companies. He leaves a widow, four sons, and one daughter—Mrs. Falconer King, of Edinburgh.

DART.—At Bampton (Devon), on April 7, Mr. William Dart, chemist and druggist. Aged 71. Mr. Dart formerly carried on business in Southampton Street, Strand, W.C., and for many years was a member of the Strand Board of Guardians. He was a native of Torrington, and on his retirement from business (about five years ago) he went to reside at Bampton, where his brother is postmaster.

GRIMES.—On April 11, 1902, at 8 Sydney Avenue, Blackrock, co. Dublin, Lily, wife of Mr. H. C. Grimes, representative in Ireland of Messrs. Evans, of Liverpool. Mrs. Grimes was one of the ladies committee of the recent Pharmaceutical Conference in Dublin, and her death has been heard of with much regret by all with whom she came into contact at and prior to the Conference.

LEWIS.—At Llangefni, Anglesey, on April 7, Mr. O. Lewis, chemist and druggist. Aged 61. Mr. Lewis, who died very suddenly, had carried on business at Llangefni for a considerable number of years.

MACEWAN.—At 37 Hornsey Lane Gardens, Highgate, N., on April 15, Agnes Margaret, daughter of Mr. and Mrs. Peter Macewan. Aged 18.

PATTEN.—At Newhall, near Burton-on-Trent, on April 3, Mr. James Hinde Patten, chemist and druggist. Aged 68.

WALTER.—On March 29, at Glasgow, Mr. James Robert Walter, chemist and druggist, formerly of Kirkwall. Aged 30.

WATTS.—On April 3, Mr. John Watts, chemist and druggist, Landport. Aged 56.

WILLIAMS.—At Llanfyllin, Montgomeryshire, on April 3, Mr. William Williams, chemist and druggist. Aged 62.

Recent Patents.

Coffee Extract.—Dr. Ekenberg, Gothenbourg, Sweden, makes coffee extract by the following method. Freshly ground coffee is exhausted with water under pressure at a temperature of not less than 105° C. The product is filtered, evaporated to dryness and powdered. More aroma is gained by condensing the vapours given off in roasting coffee. A little lactic or acetic acid may be used in the water used for exhausting the coffee. (11,474, 1901.)

Antiseptic.—Chas. Billing, chemist, 15 Wenham Street, Liverpool, obtains protection for an antiseptic or detergent made from monoborate of potash or soda, or a mixture of these with or without monoborate of ammonium. The monoborate is made by mixing boric acid and caustic potash in equivalent quantities or by neutralising borax with caustic potash; a little ammonia prevents the absorption of carbon dioxide from the air. (10,549, 1901.)

Boiler-covering.—A. T. Church, Grimsby, has been protected in the use of the following composition for covering boilers and steam-pipes:—

Cowhair	...	...	...	4 oz.
Chopped manilla	...	...	...	4 oz.
Yellow clay	...	...	...	5 lbs.
Asbestos pulp	...	...	...	1 lb.
Water	...	...	...	3 lbs.
Papier mâché	...	...	...	8 lbs.
Starch	...	...	...	4 oz.
Glue sizing	...	...	...	4 oz.

(12,737, 1901.)

Colic in Horses.—Sigmund Metzner, Kattowitz, Germany, has obtained a patent for the following colic-cure for horses:—

Hydrarg. subchlor.	...	...	...	5 grammes
Antim. tart.	...	...	...	8 grammes
Chloral hydratis	...	...	...	10 grammes
Rad. rhei	...	...	...	20 grammes
Rad. valerianæ	...	...	...	20 grammes
Rad. althææ	...	...	...	20 grammes
Muc. acaciæ, B.P.	...	...	...	5 grammes
Ol. tanacetii	...	...	...	20m
Ol. carvi	...	...	...	20m
Ol. menth. pip.	...	...	...	20m
Ol. petroselinii	...	...	...	20m

(12,719, 1901.)

Domestic Dyeing.—Louis Alcy, Ostend, has obtained protection for a dyeing composition, adapted for domestic use, made as follows:—

Calcined sulphate of soda	...	...	...	540 grammes
Gum arabic	...	...	...	100 grammes
Raw sugar	...	...	...	100 grammes
Animal gall or bile	...	...	...	100 grammes
Potato-starch	...	...	...	100 grammes
Glycerin	...	...	...	20 grammes
Aniline-dye	...	...	...	40 grammes
Perfume	...	...	...	1 gramme
Formol	...	...	...	10 to 20 drops

This makes a paste, but a powder may be made by omitting the glycerin. Ten grammes of Parama wood extract may be used in place of a like quantity of gall. (11 359, 1901.)

Gas-igniter.—Dr. Angelo Simonini, Brooklyn, U.S.A. patents the following improvements in an igniting-device for gas. The lighter consists of a preliminary heater of platinum black and an igniter consisting of fibrous material impregnated with a solution of

Thorium nitrate	...	...	...	99 per cent.
Cerium nitrate	...	...	...	0.98 per cent.
Rhodium chloride	...	...	...	0.02 per cent.

The solution being dry, the upper portion is painted in lines or spots with an intermediate heater composed of a solution containing

Thorium nitrate	...	...	...	99 per cent.
Cerium nitrate	...	...	...	0.8 per cent.
Rhodium chloride	...	...	...	0.2 per cent.

(13,579, 1901.)

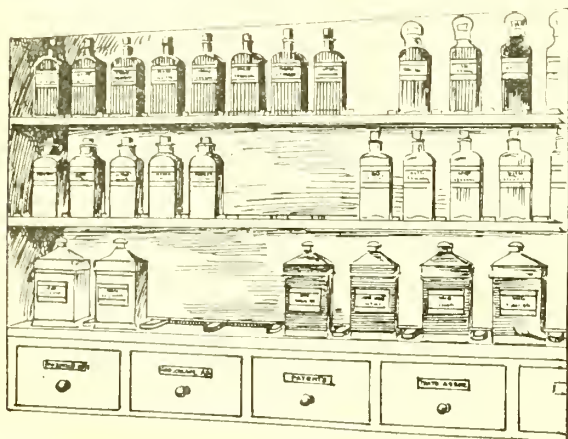
Our Town Traveller.

THE usual condemnation of the Budget proposals is *au fait*, and I have listened to many dissertations this week on the pettittogging character of Black Michael's schemes for raising money for the ensuing year. The principal plaint of business-men appears to be that a considerable dis-organisation of trade is to be effected for a comparatively paltry result. Whether that be so or not is not within my province to state (even supposing I knew), but I managed incidentally to gather that the trade prospects, which seemed brighter with the new year, are increasing in brightness with the imminence of Peace. A hopeful, not to say buoyant, tone pervades the wholesale, and especially the export, community which augurs well for the future.

New ideas for the appropriate adornment of the pharmacy are always welcomed by the enterprising pharmacist. To that end the

YORK GLASS COMPANY (LIMITED)

have instituted a new set of shop-bottles, which are unique in design, and for which some practical advantages are claimed. These bottles are in the form of direct squares, and may be had in the usual shop-sizes to hold 5 oz., 10 oz., 20 oz., and 40 oz. respectively. The usual colours are represented—actinic, white, and blue—and with the single exception of the shape they are like the ordinary round. The poison-bottles, however, are ribbed and appear to be even more distinctive to the touch than the ordinary round ribbed bottle. One advantage which the square series possesses is the fact that the label can be seen in its entirety at a glance. Shop jars are constructed in the same manner and in two colours—maroon and pink—the pink series having gilt cornices. All these jars have rounded edges inside and outside and are nicely finished and good to look upon. A better and more secure grasp can be obtained of the square bottle or jar than of the round, and the squares are said to take up less space on the shelves. The recess labels of the York Glass Company are used, and the glass label being flat is not only stronger, but can be more substantially fixed to the bottle than a curved one, and there is therefore less liability to fracture. As a further means of ensuring uniformity in appearance and the security of the bottles, the York Glass Company have devised a very simple method of fixing the bottles on the shelves. A strip of wood is fixed lengthwise at the back, against which it is only necessary to push the bottles and jars so that they shall all stand square, and thus perfect alignment is secured. Equal space between the bottles is obtained by putting strips at right-angles to the longitudinal slips. These strips are tapered off towards the front, thus enabling bottles and jars to be slipped naturally and with ease into their places, while if at any time one should desire to convert the shelf to ordinary use it is only necessary to remove the dividing-slips. The illustration given herewith will show the means



which may be adopted. The method certainly appeared to work well in practice as I saw it in operation at the Company's London branch at 76 Finsbury Pavement, E.C.,

where Mr. Wilson demonstrated its utility, and where he will be glad to welcome any craftsmen who wish to inspect their new designs. These bottles, jars, &c., are produced at the same prices as the round series, and doubtless a judicious mixture of round bottles and square ones would have a not unpleasant effect in the pharmacy.

I looked in at 33 Wilson Street, Finsbury, E.C., afterwards and had a talk with Mr. Jones and Mr. Johnson, the London representatives of

MESSRS. WYLEYS (LIMITED),

of Coventry. These gentlemen report very satisfactory progress during the six months of their operations in the south. They have a nicely-fitted showroom where customers can inspect the series of pharmaceutical preparations and specialties put up by their firm. I was shown some chocolate-coated tablets of Bland's pills, digestive-tablets, &c., which, in appearance, consistence, and taste, ought to commend them to the fastidious. These tablets are packed either loose or in bottles to retail at 1s. The shilling bottles when sold in quantities of three dozen have the name and address of the purchaser printed on each bottle. The same conditions apply to the Effervescent Tropels, such as lithia, Carlsbad, Vichy, and other waters. These are packed in glass tubes, each containing twelve or twenty-four respectively, and retail at 6d. and 1s. Each tube is afterwards packed in a box which is also labelled. Messrs. Wyley are putting on the market this season a selection of effervescent salines, packed in cartons of various devices to suit varying tastes. Photographic chemicals are likewise a specialty, these being sent out chiefly in neat little cartons. Antiseptic pastilles in considerable variety, with a soft gelatin base, are packed in nicely decorated 2-oz and 4-oz. tins. These sell, I am told, with great rapidity, especially during the bronchial season, and I can believe it, for they are pleasant. Gelatin-coated pills and veterinary specialties are others of Messrs. Wyley's strong points. The duraplastic horse-balls (also with customer's name printed on orders of three dozen) are well known to agricultural chemists. The gelatin coating on these balls not only looks elegant, but preserves the consistency of the contents.

A visit to the London depôt of the

LUCE'S EAU-DE-COLOGNE COMPANY

at 12 Little Britain Street, Aldersgate Street, E.C., discovered a certain degree of chaos consequent upon extensive alterations taking place to cope with increasing business. Luce's eau-de-Cologne, which was first manufactured in Jersey by Mr. Henry Luce in 1837, is now prepared also at Southampton for handiness for export. The volume of business being done, according to Mr. Burden, is ever increasing, and several special styles he showed me which have been produced for the Coronation. These consist of boxed Cologne in various sizes. The larger size is in the form of a barrel, which reclines in a satin-lined leatherette covered case bearing on the outside well executed portraits of the King and Queen. The large-sized label bears a picture of the Victoria College, Jersey, but the distinctive feature of all is the Jersey flag, which appears on all genuine Luce's Cologne. The cases are to be had either in light or dark blue leatherette. At the same time Mr. Burden directed my attention to the fact that L'Ozonatene and Ozonatine, for which Messrs. Langton, Ford & Burden are the sole agents in Great Britain, are both selling excellently well. We have already referred to both these preparations (see *C. & D.*, November 23 1901, pag. 836), and have only to advise colonial buyers that indents should be made out on home shippers.

At 11 Queen Victoria Street, E.C. (about one minute's walk from the *C. & D.* offices), the inquirer will find Mr. Olive Meares, who represents the

MARVEL COMPANY OF NEW YORK.

Mr. Meares has many pharmaceutical strings to his bow, but his pet project at present is the "Marvel Whirling Spray." The merits of this useful and well-made vaginal-syringe he demonstrated to me in the course of a recent chat. As its name implies, the syringe discharges its contents in a "whirl" instead of in the usual solid stream. The "whirl-spray" is a detachable cap at the end of a highly polished rubber pipe about 5 inches long. The pipe leads into an

indiarubber ball holding $\frac{1}{2}$ pint of liquid, and a valuable addition is an adjustable soft rubber sheath which closes the vaginal inlet and prevents the fluid from escaping. A rubber nozzle cap is also supplied to prevent leakage if the syringe is carried filled for use when travelling. These caps and the nozzles may be had separately.

"The retail price," concluded Mr. Meares, "is 15s."

"But that is a long price," I urged. "How are you going to induce British chemists to stock so expensive an article?"

Mr. Meares was not to be dashed.

"I know the price is a big one," he said, "but the article is worth it. The material is of the best, as you can see, and, furthermore, the retailer will have about 5s. profit on each sale, and the chemist will have Protection."

He meant the Protection of Mr. Glyn-Jones, not of Sir Michael Hicks-Beach, as I afterwards gathered.

"Moreover," he said, "chemists will be able to buy any number under a dozen at the dozen rate; and for all good-sized orders a profit of about 50 per cent. is assured to the retailer."

I seldom go into the showrooms of

MESSRS. F. SCHUTZE & CO.,

at 89 Southwark Street, S.E., without encountering several novelties. The most recent productions in perfumery are headed in point of importance and appearance by "Violet Russe." This pleasant perfume is put up in elegantly finished bottles of three sizes, each bearing a striking label, which is a replica of the Russian Imperial Arms, embossed in gold on a purple background. The stoppers are tied with white silk bows, and silken cords trail down each side. They retail at 1s 6d., 2s 6d., and 4s 6d. each. Messrs. Schutze have an extensive Scotch connection, for which they cater most successfully. The Heather-Scented Oatmeal Soap of Grant et Cie., which is packed in tartan wrappers, has been reinforced by a Heather-Scented Perfume, with label and trimmings to match, and a Heather-Scented sachet is appropriately added to complete the series. Messrs. Schutze are also the agents for "Mountain Glory," a perfume evolved by Mr. James Walker, chemist, Saltcoats, N.B. The label of this perfume is unique. It is a picture of fairies culling the Czarina's favourite flowers to make perfume. The wording of the label is printed in Gaelic as well as in English, and the cork is a gilt crown-shaped sprinkler. Half-a-dozen other new lines in floral extracts of various kinds I saw, with dainty art-labels to suit all tastes. The Coronation season, of course, is not forgotten; even the humblest may be made to participate, for I saw a series of Coronation lockets, in the form of a cross, to sell at 1d. each. These contain camphor or perfume as desired, and should attract the juvenile portion of the community during the coming festivities. "Patriotic Confetti" is another novelty. It is said to be antiseptic, and is certainly perfumed, and when not used for the purpose for which confetti is usually employed the package may be utilised as a sachet-powder. The bathing-season which is approaching is being adequately provided for. A bathing-cap of pure rubber, to which Mr. Schutze drew my attention, is certainly a novelty. It is made of very fine rubber, and is coloured to resemble agate. It is very light, and capable of being compressed into a very small bulk, and it is very pretty. A series of sponge-bags, aprons, bibs, and bathing-caps, made of "Silkateen," contain no rubber whatever. These are said to be practically imperishable, and are much sought after in hospitals and places of that description, as the articles may be sterilised by boiling without harm.

A GLASGOW critic, reviewing Mr. Gibson's "Ulysses the Harper," remarks that the writer resembles Browning in one respect: his meaning is often obscure.

MR. SEDDON, the New Zealand Premier, has publicly stated that the colonies are ripe for a preferential tariff. The Imperial authorities, he said, had intimated that they would not stand the bounty system much longer. The most effective way, would be for the colonies and New Zealand to grant a rebate or drawback on all the British manufactured goods brought into the colony by British ships, the Imperial authorities granting a similar rebate on colonial products upon which duties were now chargeable at home.

Oriental Imagery.

THE florid language of the native of the Orient is a never-failing delight to the products of a western civilisation. Our Indian empire abounds in men who carry their inherent extravagance of rhetoric into everyday business life, to the joy of their European brethren. And in no domain of industry is the power of rhetoric more necessary or more convincing than in what is popularly known as "the patent-medicine business." We receive periodically amusing literary productions from India which pass a half-hour most agreeably. The latest to hand is the price-list of B. Basu & Co., "chemists and druggists," of Calcutta, who own "four most wonderful medicines—Bijoya Batika (wonderful fever-pills), Sarsaparilla (elephant mark), Fulela (unrivalled sweet-scented hair-oil), and a matchless tooth-preserve." These marvellous preparations, we are told, command universal respect, and are in demand throughout the world. They are eagerly sought for by Hindus, Mahomedans, and Christians. The prince and the peasant, the rich and the poor, the "literate and the illiterate" all hanker after them. Bijoya Batika, "for malarious fever," has no equal in the wide, wide world. Its marvellous efficacy has made its reputation not only in India, but also in England and the European Continent, "as well as in Persia, Arabia, Egypt, Natal, and other countries." It has saved the lives of thousands when Allopathic, Homoeopathic, and Kabiraji medicines have failed, and "O! why," bursts forth the inspired writer, "should human beings be hopeless when such a wonderful medicine exists to relieve them of their sufferings and save them from the jaws of death?" Why, indeed? Bijoya Batika not only cures fever, but is a never-failing liver stimulant; and, indeed, it cures "also most other maladies to which the human body is subject." There is a sweet comprehensiveness in the latter statement which cannot fail to be convincing. Then follow selections of testimonials from the "thousands and tens of thousands received." Gentlemen with high-sounding sobriquets like "Pundit Shib Chandra Sarabaddhoum, the most distinguished Master of the Naya Philosophy in Bhatpara and principal and chief professor at the Moolazore Sanskrit College," and the more plebeian "Mrs. Rogers of Lahore," with many others, testify to the curative properties of the wondrous Bijoya. The "Elephant-mark" sarsaparilla when taken "after hard labour" (there is a suspicion of police-courts here) "exhilarates both the body and mind." Moreover, "it staves off premature old age, and makes the body strong and tight." Besides purifying the blood, it nourishes the bones, beautifies the complexion, kills worms, and increases the memory and intelligence. But all these things are as naught before the virtues of Fulela. Here the medicine-man lets himself go. This matchless hair-oil, he says, is an extract of seven of the most sweet-scented flowers of India. With the perfume and active principle of these sevenflowers have been chemically combined several highly efficacious Ayurvedic medicines. "The fragrance of Fulela is such that, when used, it permeates the atmosphere all around, and the gentle breeze wafting it to a distance makes the passers-by pause and look about for the source of this wonderful perfume, under the impression that somewhere near them must be a garden, where thousands of flowers have all of a sudden blossomed, turning this earth into the paradise of Indra, the King of the celestial regions. In fact, the fragrance of fulela is unequalled in this world."

Fulela is not only a hair-oil but it keeps the throbbing brain cool and the spirits cheerful and buoyant. It also removes freckles and pimples from the face, and makes the skin soft and shiny like that of a babe. It is, moreover, a disinfectant, poisoning the deadly microbes which lurk in the air, and "is the most precious present you can make to your beloved wife, your dear daughter, and all those whom you love." Of Fulela, Babu Amrita Lal Basu, manager of the Star Theatre, Calcutta, the great satirist and dramatist, writes:—"Of what flower is this—your Fulela? Is it from the flowery string of Cupid's bow? Have you quietly snatched a few fresh petals and diluted them in sweet oil? Otherwise how could it be, that in the simple softness of its odour there should be a charming enamouring power—a soul-enthraling agency? The fragrance calls back some long-lost sweetness, some lovely expressions of the forgotten past!"

Describing Mr. Basu in this connection as a satirist appears sinister somewhat, but enough has been written to show that our Western medicine-man is far behind his Eastern contemporary in the grace of speech. Could not a Beecham or a Geddes import an Oriental advertising-agent?

FROM Glasgow Village, East Bank, Rio Berbice, British Guiana, we have received a letter from a native gentleman who wants price-lists, but particularly sample-boxes of ointment. He says:—"Let me know if You could Supply me with Some Best ointment I am Suffering from the result of a Snake Bite from about three years now & Same cannot be heal I expended nearly one hundred Dollars in physician But it is of no use the ulcer is clean and level only required to be Heal But By no means same Cannot be heal if possible please let me have a sample Box of ointment and as soon as price list is received I will mail you my order."

Winter Session.

Royal Institution.

LORD KELVIN was in the chair at the Friday evening discourse on April 11, when Professor DEWAR spoke on

THE PROBLEMS OF THE ATMOSPHERE.

He said, since it has become comparatively easy to manipulate the atmosphere in liquid form, many problems of practical utility have suggested themselves, and it cannot be overlooked that there are great potentialities in liquid air. The idea naturally occurred that it might be possible to separate the two main constituents of the atmosphere—oxygen and nitrogen—and thus provide a cheap source of oxygen for metallurgical and other operations. Experiments have been conducted with a view to separating the two gases as they liquefy, but as that happens at nearly the same temperature it was found to be impracticable. Fractional distillation has also been tried, and it is possible to get a gas containing as large a proportion as 90 per cent of oxygen, but the waste of liquid air is too great. Another method which promised some success was to separate by means of a centrifuge the spongy mass of oxygen from the nitrogen at the solidifying-point and in a vacuum, but the product did not contain more than 50 to 60 per cent. of oxygen. As a laboratory reagent liquid air is admirable for drying gases, in place of phosphoric anhydride or sulphuric acid.

The discourse then turned on whether there is any non-liquefiable constituent of the atmosphere, and it was found on experiment that an atmospheric air could be liquefied in such a way that the liquid contained all the constituents of the atmosphere, those that are more condensable as well as those that are less condensable than air, the latter being held in solution. From this, by a process of fractional distillation, the different constituents—crypton, neon, and xenon—can be definitely separated and sealed up in vacuum-tubes for spectroscopic examination. The question then arose as to how great the proportion of hydrogen is in the atmosphere. To determine this is a matter of difficulty. Gautier's laborious investigations yielded the result that marsh gas is present in varying amount, while hydrogen occurs to the extent of 20 parts in 100 000, and is almost constant whether the samples of air were taken from a forest or from the surface of the sea, from Paris or the Pyrenees. But it was doubtful, from experiments by Lord Rayleigh, whether such a large amount of hydrogen could really be present in the atmosphere, and it appeared probable that it was in some way introduced during the course of the inquiry.

To settle this point Professor Dewar endeavoured to separate the incondensable portion from the condensable by employing a liquefying-apparatus in which the solution of the former in the liquid was prevented, and by using a glass float in the liquefying-vessel he succeeded in liquefying the oxygen and nitrogen of the air, but collecting the hydrogen and helium as gases. Through this apparatus he could pass 100 litres of air in the liquid state in fifteen or twenty minutes, whereas Gautier required twenty-four hours to deal with the same amount. The incondensable residue thus obtained amounted to one thirty-thousandth or one forty-thousandth of the total—a very much smaller amount than that found by Gautier. It therefore became necessary to consider whether any considerable portion of the hydrogen escaped collection by the float-method. The answer was in the negative, for the lecturer by another method found the incondensable portion to be about one thirty-five-thousandth, while, when a known amount of hydrogen was added to air known to be free of any incondensable residue, it could be recovered by means of the apparatus.

Professor Dewar thinks the source of error in Gautier's observations was the metal pipe, 90 metres long, used for conveying the air to the testing-apparatus. His experience is that, using metal apparatus and drying-agents, it is easy to get contamination with small quantities of hydrogen.

Professor Dewar next spoke about the constitution of the upper atmosphere. The constituents up to a height of about nine miles had been ascertained to be present in practically the same proportion as at the sea-level, but according

to Dalton's law there must be a continuous variation in the constituents at greater heights. Thus, at eighteen miles the carbonic acid should disappear, while at thirty-seven the oxygen, and at sixty-two the nitrogen, should have gone. Hence it is not to be expected that much change would be detected in the samples hitherto brought down by balloons, but he believes it will be found possible in the future to get samples by means of balloons from heights of twenty miles. Whether there is an universal interplanetary atmosphere, or whether our atmosphere is absolutely limited to a height of some fifty miles, is a disputed point; one school holds that interplanetary space has no gas and no temperature, another that it has a temperature of something like -140°C ., the residue of temperature being due not to collision, but to initial velocity of the molecules.

Chemists' Assistants' Association.

At a meeting of the above Association, held at 73 Newman Street on April 10, presided over by Mr. J. W. Peck (President), Mr. E. A. ANDREWS, of St. Mary's Hospital, read some notes on

EXTRACTUM BELLADONNÆ LIQUIDUM

Mr. Andrews, after stating that at St. Mary's they used about 3 cwt. of belladonna-root in a year in making the liquid extract, stated that he did not remember reading any account dealing with the important point of the long time necessary to finish a batch of the official preparation. I find, said the speaker, that it usually takes about a fortnight to complete a batch in the official method, and the shortest time that a batch can be prepared in, exclusive of estimation, is nine working-days. Needless to say, in hospital-work, as in every other business-place, time is a consideration, and I have made many experiments to produce a preparation which shall agree with that made by the B.P. process, but prepared in a shorter space of time. Some of my earliest experiments were in the direction of devising some means of automatically supplying the spirit to the drug, and, as we are dealing with a spirituous menstruum, the apparatus had to be such that evaporation would be reduced to a minimum.

Mr. Andrews then explained how he modified a process he saw described in Remington's "Practice of Pharmacy," in which three percolators are supported on retort rings attached to a central rod fixed in the counter, and projecting about 18 inches above the top of the fittings. This arrangement permits the percolators to be raised or lowered as required, and with the aid of screw-clips the rate of percolation can be regulated to a nicety. The percolators are fitted with a glass cover, through which a hole is drilled and a tube inserted to allow the menstruum to enter from above. Another tube at the bottom carries the percolate to the next percolator, the whole acting automatically.

Having got a method which did not require much attention, steps were taken to see if the drug could be equally well exhausted in a shorter space of time, and finally the following modification of the B.P. process was adopted.

Take 40 oz. of menstruum, ordered in the B.P., and 2 lbs. of belladonna-root in No. 20 powder. Moisten 8 oz. of the powder with 4 oz. of the menstruum, pack moderately tightly in a percolator, and let stand from 5 P.M. till 9 A.M. the following morning. Attach to automatic supply, and allow menstruum to drip on to the drug at such a rate that it is moistened right through and a distinct stratum of fluid formed on the top by 2 P.M. Attach a receiver, and let rate of percolation be such that 4 oz. of percolate are collected by 5 P.M. Stop the flow of the menstruum. Use the 4 oz. of percolate to moisten a second 8 oz. of drug; pack in a percolator; attach to this the tube of percolator 1, and let stand till 9 A.M. next morning. Allow the menstruum to drip into 1, and the percolate from 1 to drip on to the drug in 2 at such a rate that it is moistened through and a stratum formed on the top by 2 P.M. Attach a receiver, and collect 4 oz. of percolate by 5 P.M. This same method is adopted with the third and fourth quantities of drug, passing the percolate from 2 into percolator 3, and so on. At the end of the fourth day 4 oz. of strong percolate will have been collected; the remaining 8½ oz. are collected on the fifth day, allowing percolation to proceed at the same rate as on the preceding days. When the 40 oz. of menstruum has dripped into percolator 1, the latter is raised, and when percolation ceases, or is so slow that there is danger that the distinct stratum of fluid will not be kept on 2, it is disconnected, the marc pressed, and the fluid poured on 2. Percolators 2 and 3 are treated in the same manner.

Proceeding, Mr. Andrews said the advantages of this method are that a batch can be prepared in five days; the periods of maceration are convenient; a definite quantity of menstruum is used; the loss of spirit by evaporation is reduced to a minimum; and the amount of alkaloid extracted is about the same as when the strictly B.P. method is followed.

Mr. Andrews then dealt with other experiments made with a view to testing the relative efficiency of his process and that of the B.P. He prefers two gravimetric estimations to the B.P. method of one gravimetric and one volumetric test.

Mr. Andrews concluded with a reference to the diverse views as to what constitutes a No. 20 powder, and he blamed the 1898 Pharmacopœia for this.

A vote of thanks was accorded to Mr. Andrews for his paper.

Newcastle Chemists' Association.

A MEETING of this Association was held in the Hôtel Métropole on April 9, Mr. Robert Wright (President) in the chair. A letter was read from one of the candidates for the Pharmaceutical Council asking the support of the Association in his candidature. It was decided that, as an Association, no action should be taken in the matter, but that members could vote for those candidates they chose.

Mr. F. R. DUDDERIDGE, F.C.S., of the local school of pharmacy, was on the card for

ARSENIC-TESTS,

and gave a very interesting *résumé* of the occurrence of this poison, together with the different methods analytically adopted in its detection. He had on exhibition the various apparatus employed for the several tests, as also specimen mirror tubes, &c., prepared by Mr. J. S. Hill, to illustrate his paper. Remarking on the preference shown by different workers for their own particular test, he said it was pretty much the same as the fact that each dispenser had his pet excipient in pill-making, varying in detail according to the material to be treated.

Discussion was purely complimentary, and owing to the lateness of the hour the further business on the agenda was held over for a special meeting to be held in a fortnight's time.

Dewsbury Chemists' Association.

A MEETING of the above Association was held on April 14. Mr. R. Gledhill, the newly-elected President, occupied the chair. A resolution of sympathy was passed with Mr. J. Walker, Cleckheaton, on the death of his mother.

FEDERATION PROPOSALS.

Letters were read from the Secretary of the Federation of Local Associations with respect to the withdrawal of the Dewsbury Association from the Federation. Mr. MERSON said he had seen an extraordinary report of the last meeting of the Dewsbury Association in the trade papers, and he was doubtful whether to take Mr. Broadhead's remarks seriously. The Federation was not by any means what they would all like it to be, but the Executive were in a difficult position. They had no right to decide arbitrarily what subjects should be put forward for discussion. They were simply the mouthpiece of various affiliated bodies. He would be pleased if the Dewsbury Association would make any suggestions, with a view to extending the usefulness of the organisation.

THE CURRICULUM.

The PRESIDENT next gave the Presidential address, and said that perhaps the first question of interest was the curriculum for the Minor examination. Referring to the debate at the last Council meeting, he said the Minor examination could very well have been divided without a compulsory curriculum. (Hear, hear.) Before a compulsory curriculum was introduced, their rights ought to be secured to them. If a more severe curriculum was enforced, they ought to have a monopoly of the Pharmacopœia. As to the Minor examination, he thought they would all agree that it ought to be divided. (Hear, hear.) Mr. Gledhill next

alluded to the Council election, and said they ought to take more interest in the election of members. He did not find as much fault with the Council as most people did. Very often their silence was a sign of their soundness. He maintained that the Society was not backed up as it ought to be. The President also said the report of the Poisons Committee would be brought before them in the course of the year, and it seemed probable they would have to renounce some of their rights. He would fight against giving away a single poison; they ought rather to have an extension. As to prescription-dispensing, Mr. Gledhill contended that every person who dispensed a prescription, whether in a shop, an infirmary, or a surgery, should be qualified under the Pharmacy Act.

It was agreed to contribute 1*l.* 1*s.* to the Martindale Memorial Fund, and it was also decided to recommend members to vote for the following candidates at the Council election:—Messrs. Glyn-Jones, Harrison, Harrington, Campkin, Pickering, Young, and Carteighe.

Bristol Pharmaceutical Association.

A MEETING of this Association was held on April 9 at the Royal Hotel, the President (Mr. E. F. Young) in the chair. After the usual routine of business had been conducted, the VICE-PRESIDENT (Mr. G. T. Turner) read a paper on

THE MINOR EXAMINATION.

The present method of conducting the Minor examination leaves, Mr. Turner said, much to be desired, and the many suggestions and schemes that have been propounded to improve it have so far only had the effect of increasing its stringency. It was hard that a student who only fails in perhaps one or two subjects should be obliged to go through the whole ordeal again. A medical student is only re-examined in those subjects in which he has previously failed. Mr. Turner thought that no curriculum should be enforced on any student who was apprenticed before January, 1901, and that the Minor examination should be divided into three sections—(1) practical, (2) scientific, and (3) technical subjects. There is a strong feeling on the question throughout the country, and the speaker held that a canvass should be made of all members and associates of the Society; and that the decision of the majority, and not that of the Council, should determine the point. Before a curriculum is put into force better provision should be made in large centres throughout the country for the education and training of pharmaceutical students on the lines suggested by Mr. Paterson in his Federation paper. At the same time, Mr. Turner suggested that the objects of the Federation would be greatly furthered by putting the British Pharmaceutical Conference on a broader basis, so that papers on Parliamentary, educational, or commercial questions could be read before it.

An interesting discussion followed, in which Messrs. Young, Plumley, Taylor, Berry, and Boorne took part, there being unanimity with the opinions expressed in the paper.

At the conclusion of the business-meeting about thirty members and friends sat down to supper, and after supper a programme of vocal and instrumental music was rendered by Messrs. F. H. Blissett, H. E. Boorne, A. W. Cox, A. B. Francis, H. O. Isaac, C. A. Stokes, G. T. Turner, T. Walker, T. Wilkes, and E. F. Young, which was much appreciated. Mr. E. W. Hill acted as accompanist.

Three Towns Junior Chemists' Association.

MR. J. STUART THOMPSON, lecturer on biology at the Plymouth Municipal School, gave a lantern-lecture on

INSECTIVOROUS PLANTS

to the Junior Section of the Plymouth, Devonport, Stonehouse and District Chemists' Association on April 9. The chair was taken by the President (Mr. C. T. Weary). The lecturer showed slides of the chief genera of insectivorous plants—namely, *Darlingtonia*, *Sarracenia*, *Nepenthes*, *Utricularia*, *Dionaea*, *Aldrovanda*, *Luttrellia*, *Pinguicula*, and *Drosera*; and showed the means which the leaves of these plants possessed for capturing, digesting, and absorbing their animal prey. The subject was treated partly from an

historical point of view, and the discovery of Venus's Fly Trap (*Dionaea*) by Ellis, a London merchant, in 1768, and how it was enthusiastically described by Linnaeus as "miraculum naturæ" was alluded to by the lecturer. He referred to experiments showing that the liquids poured out by different genera of insectivorous plants possessed deliquescent, mucilaginous, antiseptic, anæsthetic, rennet-like, and peptic properties. The extreme sensitiveness of insectivorous plants to organic fluids was described in the sundew, in which plant Darwin had shown that a leaf immersed in an extremely dilute solution of ammonium phosphate, only sufficient to supply each gland on the leaf-surface with $\frac{1}{1000000}$ gr., yet was strong enough to induce the inflection of the numerous tentacles on its surface.

A discussion followed, after which a vote of thanks to the lecturer was passed, the PRESIDENT regretting that the attendance was so small.

N.E. Lancashire Chemists' Association.

A SPECIAL meeting of the Association was held on April 16 at the White Bull Hotel, Blackburn, Mr. W. H. Grimshaw in the chair.

APPRENTICESHIP.

Mr. W. HOLT moved—

That, in the opinion of this Association, it is desirable that the chemists of this district refuse to enter into apprenticeship agreements until training conditions and results justify such contracts.

He observed that his action was open to some criticism. It would be said by some that there were no apprentices to be had, but that was not strictly true—if they would modify the assertion by the word "capable," then he would agree. In his opinion, the time had come—in that part of the country, at any rate—when the question ought to be dealt with drastically. The dictionary definition of the word "apprentice" was one bound for a term of years to serve at some craft or trade under a master, who in turn binds himself to teach such apprentice that craft or trade. The present First, or Preliminary, examination opened out to the successful student many more worthy and remunerative callings than that of a chemist. He (the student) objected, first, to the little spare time he had to do the excessive "grinding" requisite for the severe Qualifying examination; then he objected to the long business-hours, the drudgery of the errand-boy and the porter; and, lastly, to the poor remuneration after qualifying. Mr. Holt said that the standard of examination was far above what was at present required in the great majority of shops. But that fact alone might not have deterred many capable men from entering the drug-trade provided the Pharmaceutical Society had been able to restrict the title and practice to the qualified man. The inability to bring about that much-to-be-desired object was no doubt one of the chief causes of the scarcity of good men, and was sure to have a discouraging effect upon the efforts of those who sought to bring about a curriculum or the much-talked-of university training. The only alternative to the lack of apprentices remaining to the chemist of that district was to employ errand-boys and ordinary manual labour (always taking care, of course, that the Sale of Poisons Act was duly observed), so that their obligations ended with the payment of wages for actual work done. He asked members to seriously consider whether they could continue to be parties to apprenticeship-contracts until something more tangible in the shape of privileges was conferred upon those holding the qualification—the natural consequence of which would be that a better class of youth would be induced to come forward, and their ability to teach him with credit to themselves would be greatly enhanced. (Cheers.)

Mr. J. HINDLE, in seconding the resolution, said it was rather singular that, although he had had no conversation with the mover, his own views on the matter ran exactly on parallel lines.

Mr. R. L. GIFFORD said there was a tendency for apprenticeship to die out. He was informed this was observable in engineering and other callings. It certainly might be affecting them. In his opinion, however, the present acute state of the question arose simply and directly from the lack of inducement to follow the calling. This

brought them to the same conclusion they arrived at some years ago—that their business was to deal with causes, to remedy root evils, so as to allow of natural development. The wise policy and the sensible must be to face the problem, which might be summed up thus: the State ordained qualifications, whilst unqualified practice was usual and general. The several phases of the broad question were: Primary evils—unqualified practice and use of titles. Subsidiary or consequent evils—(1) general exploitation of the calling; (2) unnatural growth of the abominable patent-medicine business; (3) retrogression of the drug-trade, where it ought to have developed professionally; (4) apprenticeship difficulty; failure to guard as a first and essential necessity against unqualified practice. This he regarded as the source of all their real evils.

Other members having spoken the motion was put and carried.

Business Changes.

COHEN'S DRUG STORES have been opened at 146 Commercial Road, E.

MESSRS. J. B. FRANK & Co., chemists, will shortly open premises at 111 Brixton Hill, S.W.

MESSRS. BOOTS (LIMITED) will shortly open a branch at 7 King Street, Hammersmith, W.

MR. N. BRUNYEE, chemist and druggist, is opening a business at Crowle, near Doncaster.

MR. F. W. FOX, chemist and druggist, Redbourn, has opened a branch at Clarence Park, St. Albans.

MR. H. J. TOTTLE, chemist, Epsom, has taken over the business of Mr. F. Oxley, Epsom, as a branch.

MR. REUBEN HIRD, chemist and druggist, Gloucester, has opened a branch business at 30 London Road, Gloucester.

MESSRS. LEWIS & BURROWS (LIMITED), chemists, are about to open a new branch at 136A High Street, Clapham, S.W.

MR. J. H. JONES, chemist and druggist, has relinquished the business formerly carried on by him at 121 Finsbury Pavement, E.C.

MR. G. S. BOUTALL, chemist and druggist, announces his intention of shortly vacating his premises 98 Strand, W.C., in consequence of their pending demolition.

MR. J. STEVENSON, chemist and druggist, has bought the business lately belonging to Mr. Percy Appleyard, chemist and druggist, at 39 Ledbury Road, Bayswater, W.

MESSRS. BOOTS (LIMITED) have acquired the premises at 25 Grand Parade, Green Lanes, Harringay, N., which they will occupy as soon as the necessary alterations are completed.

MR. GEORGE E. GRATTON, chemist and druggist, of Rhyl, has opened a branch pharmacy at Constitutional Buildings, Prestatyn, with fixtures supplied by Messrs. Evans, Sons & Co., of Liverpool.

THE old-established business at Bilston, dating back one hundred years, which was formerly carried on by the late Mr. R. H. Kearnes, chemist and druggist, has been acquired by Mr. Heynes.

MESSRS. WOOLLEYS (LIMITED), wholesale druggists, Blackburn, are removing to larger works, Phoenix Mills and Laboratories, where the most recent steam and electrical plant has been installed.

MR. H. L. DOUTHWAITE, chemist and druggist, has acquired premises at Chepstow Mansions, Chepstow Place, Westbourne Grove, W., which he will occupy as soon as the necessary alterations are completed.

MR. A. C. KAY, chemist and druggist, has removed from 26 to 38 High Street, Dover, where he has had a private house converted into a fine corner-shop. The fittings, &c., were supplied by Mr. H. Mills, Old Street, E.C.

MR. O. METCALFE SNOW, chemist and druggist, who (as intimated in last week's issue) has commenced business on his own account at 2 Hope Street, Filly, is making a speciality of the dispensing of foreign prescriptions. He is also an F.S.C., and has instituted an optical department in connection with his pharmacy.

Westminster Wisdom.

(By our Parliamentary Representative.)

SHOPS (EARLY-CLOSING) (No. 2) BILL.

Lord Avebury, nothing daunted, has presented a Bill with the above title to the House of Lords. It is designated "a Bill to provide for the earlier closing of shops"; and it was read for the first time in the Lords on April 14, and ordered to be printed. In the course of the Session it may succeed in getting through the Lords, but no further progress will be possible.

A MINISTER OF COMMERCE.

Amongst the notices of motions is one by Mr. A. Thomas to the effect that seeing the present constitution of the Board of Trade is obsolete, in the opinion of the House the paramount importance of industry and commerce to the well-being of the Empire necessitates the proper administration of these interests by a department in no respect inferior to other departments of State, under the supervision and direction of a minister having the status of a principal secretary. To this department would be entrusted every function of the executive government especially relating to industry and commerce.

REWARDING INFORMERS.

Mr. Layland-Barratt asked the Chancellor of the Exchequer on Tuesday whether in cases where penalties under 42 George 3. c. 59, for selling medicines without affixing the stamps in payment of duty required under that Act are not recovered by process of law, but are claimed by and paid direct to the Inland Revenue authorities, the informer is entitled to any portion of such penalties, and, if so, to what portion; and whether, if the informer is a Government official, he is entitled to a similar or **any portion** of the penalties? In reply, Sir Michael Hicks-Beach stated that the Board of Inland Revenue are empowered to grant rewards to informers, whether Government officials or otherwise, in cases of the kind referred to. The amount awarded to the informer depends upon the circumstances of each individual case.

THE VENTILATION OF THE HOUSE.

The frequent complaints as to the ventilation of the House of Commons have at length forced the Government to take some action. A Select Committee is to be appointed to inquire into the matter, consisting of Mr. Akers-Douglas, who, as First Commissioner of Works, is responsible for the condition of the place; Mr. Dillon, who is a licentiate of the Irish College of Surgeons; Dr. Farquharson, a medical member of much experience in his profession; Sir Michael Foster, professor of physiology at Cambridge; Mr. Goddard, whose knowledge as a civil engineer will no doubt be of service; Mr. John Penn; and Sir John Batty Tuke, one of the members of the General Medical Council. If such a body is baffled in finding a means of making the House really habitable, which it is not always at present, I fear a remedy does not exist outside demolition and reconstruction.

ANTI-TYPHOID INOCULATION.

The report on the results of the anti-typhoid inoculation, carried out under the directions of the War Office, has now been received. It deals with only 4,138 cases, and the aggregate results show a mortality of 8.2 per cent. in inoculated persons, as against 15.1 per cent. in uninoculated. The report, however, does not appear sufficiently conclusive in itself, and it seems expedient, in the eyes of the War Office, to obtain further statistics from the admission and discharge books before publishing it.

ARSENICAL POISONING.

The last public appearance of Lord Kelvin before he left for America to be *fêted* by the scientists there was as Chairman at the meeting of the Royal Commission on Arsenical Poisoning. Most of the evidence taken related to the recent outbreak of arsenical poisoning in Halifax. Two of the witnesses repre-

sented brewing firms, one was a maltster, and one the medical officer of health of the borough. The brewers and the maltsters complained about the discrepancies in the results brought out by analysts from the analysis of the same beers, and they suggested that some standard method of analysis should be established so that they might get reliable guidance. From the evidence it could be also gathered that the brewers all over the country are seeking to improve their methods.

SUGAR AND THE BUDGET.

Sugar has escaped further taxation. The Chancellor of the Exchequer claimed in his Budget statement that the duty imposed last year had been most successful. There has been an exceptionally good harvest of beet-sugar, and that has lowered the price to such an extent that, so far as wholesale purchasers are concerned, for several months past they have been paying not more than from 1s. 10d. to 2s. a cwt. more, after paying the duty of 4s. 2d. a cwt., than they paid a year ago. When the right hon. gentleman had gone thus far an uneasy feeling spread that a further imposition was about to be made. The apprehension was ill-founded. He went on to concede that the manufacturing industry which uses sugar as a raw material has been undoubtedly affected by the duty of last year, and he did not think it would be fair to disturb that industry again, in view of the fact that they had before them the possibility of having to work under altered conditions when the bounties are abolished eighteen months hence.

THE POISONS COMMITTEE.

I have been making inquiries as to the probable duration of the proceedings of the Poisons Committee, but I find that the members themselves are somewhat hazy on the subject. It is not likely that anything in the nature of a report will be presented until the Session is well advanced.

Kew Gardens.

Mr. McLaren on April 15 asked the First Commissioner of Works if his attention had been called to the number of crippled, stunted, and half-dead coniferous trees in Kew Gardens which were no longer properly representative of the species to which they belonged, and whether he would suggest to the managers of the gardens the desirability of removing all such trees and replacing them by young stock, providing them as far as possible with the soil most suitable for their special requirements. The same hon. member also asked whether the right hon. gentleman's attention had been called to the complaints of the pollution of the air near Kew by the smoke-producing factories at Brentford, and to the complaints that the urban council of Brentford neglected or declined to suppress the nuisance; whether his attention had been called to the injury done to evergreen trees and shrubs in Kew Gardens by the smoke-laden air; and whether he will consider the feasibility of instituting proceedings against the offending parties. Mr. Akers-Douglas replied that the cultivation of coniferous trees is not attended with success in the northern parts of the gardens owing to the smoke of Brentford; but it is already carried on in the southern part on the lines suggested. The matter referred to in the second question is receiving most careful consideration.

THE cultivation of flax in Algiers has been neglected of late years, for that of vine-growing. In 1900 however the linseed exports increased slightly owing to Government bounties. France received the entire export.

THERE is an enormous increase in the cultivation of the poppy in China, as the peasant finds that it pays him better than wheat. He now saves himself the labours of ploughing, sowing, reaping, stacking, and threshing connected with the production of wheat. Formerly he had to carry his wheat to market; now, when the time comes to collect the opium, he spends a comparatively short time in the very light labour of scraping the poppy capsules with a knife and collecting the juice in a little pot, which when full he can carry to market in one hand and sell for far more than the whole of his wheat crop would have brought in.

Scientific Progress.

Estimation of Arrhenal.—M. A. Astruc, at a recent meeting of the Academy of Sciences, Paris, suggested a method for the alkalimetric estimation of disodium-methylarsenate, or arrhenal, based on the fact that in the presence of rosolic acid one molecule of arrhenal requires one molecule of a monobasic acid for neutralisation.

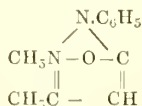
Quinine Camphorate.—Mr. T. G. Joyce, B.Sc., chemist to Messrs. Lorimer & Co, Islington, has succeeded in preparing a compound of quinine and camphoric acid. On analysing the substance, results are obtained which indicate the formula to be $C_{41}H_{40}O_7$. It is soluble about 1 in 460 of water at 15.5°C , and crystallises in beautiful needles which melt at 184°C , decomposing to a yellow liquid. The salt is said to have sedative tonic properties.

A New Santonin Derivative.—By acting on santonin with hydroxylamine in the usual manner santonin oxime results. If this be allowed to react with amyl nitrite, and the resulting compound is crystallised from ethyl acetate, the new body separates out and is a well defined pernitroso santonin, of the formula $C_{15}H_{15}O_5N_2$. It melts at 190°C , and is powerfully dextrorotatory. A well-defined dichlorosantonin is obtained by treating santonin with freshly distilled nitrosyl chloride. It forms white prisms, melting at 160° , and is also strongly dextrorotatory.

A New Sodium Phosphate.—M. H. Joulie (*Comptes Rendus*) shows that there exists a phosphate of sodium intermediate between monosodic and disodic phosphates which might be called the sesqui-sodic phosphate, and which corresponds to the formula $3\text{NaO} \cdot 3\text{H}_2\text{O} \cdot 2\text{PO}_4$. This phosphate differs from disodic phosphate (1) in being much more soluble in water and much more easily preserved in the form of a concentrated solution without crystallising; (2) in medicine it is active in much smaller doses; (3) it has a slight and not unpleasant taste; (4) it will probably be employed for hypodermic injections in more concentrated solutions than disodic phosphate.

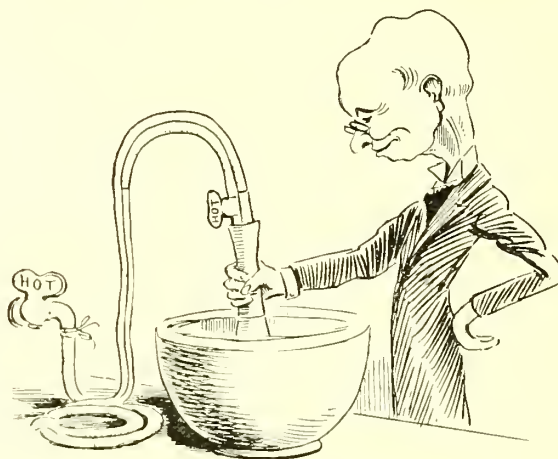
Diphenylcarbazide Test for Chromic Acid.—M. P. Cazeneuve (*Bulletin de la Soc. Chim.*) says diphenylcarbazide is the most delicate reagent for chromic acid, without the possibility of confusion with any other metallic body; its sensitiveness reaches even more than 1 part in 1,000,000. Any chromate in aqueous solution, slightly acidulated with acetic or hydrochloric acid, gives an intense violet colouration with diphenylcarbazide in the form of powder. For testing cotton goods, the material is placed in a test tube with 1 c.c. of a $\frac{1}{10}$ -per-cent. solution of potash. The threads are instantly bleached in the case of chromate of lead or chrome yellow. The liquid is then made strongly acid with acetic acid. A few grains of diphenylcarbazide or of acetate of diphenylcarbazide added to the liquid develop, on agitation in the cold, a beautiful violet colouration. This reaction is trustworthy, sensitive, and rapid.

Antipyrin Derivatives.—A study of antipyrin and its derivatives by Michaelis and Pasternack (*Pharm. Zeit.*, 1902, 180), has resulted in the preparation of a number of new compounds which throw considerable light on the constitution of this interesting body. The corresponding sulphur and selenium compounds, thiopyrin and selenopyrin, which are prepared by the action of the potassium compound of selenium or sulphur, on antipyrin hydrochloride, have constitutions exactly analogous to that of the parent compound. This is suggested to be as follows:—

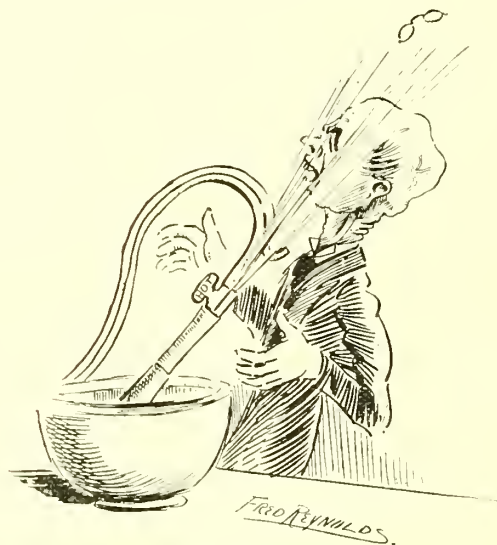


Chemistry of the Yellow Poppy.—Schlotterbeck and Watkins have just published (*Berichte*, 1902, 7) a full account of their researches on the yellow or celandine poppy, *Stylophorum diphyllum*. This plant was first investigated by Lloyd, who isolated a base which he provisionally called "stylophorine." From a considerable quantity of the crude alkaloid which the authors prepared, they have isolated by exhaustive fractional crystallisation five distinct alkaloids. Of these the principal is a base melting at 136°C , which from its chemical characters was easily identified as chelidonine. The second base is now named "stylopine," and forms needles melting at 202° . It has the formula $C_{13}H_{15}NO_3$. It is strongly levorotatory, and forms well-defined salts, several of which were analysed. The third base melts sharply, and has been termed "diphylline." The fourth base was probably protopine, and the fifth was sanguinarine. In addition to these alkaloids, the plant appears to contain free-chelidonic acid, and possibly chelidoxanthin.

Things that Happen—Sometimes.



There was an old chemist called Porter,
Who invented a hot-water mortar;



But the first time he used it
He cursed and abused it,
For it scalded old pharmacist Porter.

The imports into Dahomey during 1901 include:—Perfumery, 89,112*l*.; soap, 53,969*l*.

CLERICAL DISPENSERS—The *British Medical Journal* has had a circular forwarded to it which is being sent to clergymen by a well-known firm of pill-manufacturers. The circular says that as frequent inquiries for pills have been received from clergymen in rural districts, and as they believe the pills are mainly dispensed gratuitously amongst the poor, a list of the pills in most general demand for ordinary ailments is enclosed, together with their reduced prices. Then follows a price-list containing such pills as "pil. aperiens," "Bland pills," "pil. hydrarg., P.B.," "pil. hydrarg.," "little liver pills," "phosphori pur.," "pil. quinae sulph.," and "pil. tussi" at prices varying from 10*d*. to 2*s*. 3*d*. per gross! Indications are given for the use of these pills. For example, so-called "pil. hydrarg.," contains colchicum, aloes, and hyoseyamus, and is labelled "gout and rheumatics"; "pil. quinae sulph." is labelled "neuralgic," and "pil. tussi" "cough." The composition of the last-named pill is not given, but it certainly does not seem wise to place in the hands of the clergy such drugs as mercury, phosphorus, and colchicum without warning.

Observations and Reflections.

By XRAYSER.

The Licensing Bill

which the Government will probably pass this Session will affect the business of a great number of chemists. The conditions under which the 50s. wine-licence is now granted are obviously ridiculous. A tradesman cannot have one without first getting a justices' certificate, but the Justices cannot refuse this if the applicant fulfils certain requirements. When this Bill has passed they will have "free and unqualified discretion," and many of them will certainly exercise it by stipulating that chemists shall only sell medicated wines. Then will come the definition of a medicated wine. Some people regard port wine when bought for an invalid a medicated wine. But worse than this. The Justices will grant a licence to A and refuse it to B in the same street, on the ground that one shop for the sale of medicated wine is sufficient in a given area. A pretty reason to give to B. This favouritism or selection will be very serious indeed to many grocers, from whom thousands of families have become accustomed to buy their modest clarets. But it is alleged that Mrs. X gets brandy surreptitiously from her grocer, and gets him to put it down in his book as nutmegs or pickles, or something non-alcoholic; and it is on this tale of the cock and the bull that the proposed legislation is founded.

Liverpool Chemists

had better take to ping-pong; their pharmacological entertainments are at an end. Professor Sherrington, under whose auspices inoculated rabbits and frogs' hearts were exhibited to them last December, "the experiments eliciting the heartiest applause," said on that occasion, in reply to a vote of thanks, "he would welcome anything which would tend to make the chemist take an interest in pharmacology." He draws the line of welcoming anything, it appears, at martyrdom, even when it offers itself in such a mild form as a police-court fine. Anyway, it is satisfactory to be assured that "such experiments in similar circumstances will not be repeated." We may or may not be pronounced anti-vivisectionists, but not many of us would desire that the law which forbids "any exhibition to the general public of experiments on animals calculated to give pain" should either be repealed or defied.

Scientific Martyrs

of the present day are not cast in the heroic mould. Mr. Andrew Lang, in *Longman's Magazine* in April, mercilessly criticises a life of Huxley which has recently been published. The author of the life lingers on "the tribulations through which the fighters of the sixties entered the kingdom of the free." The tribulation in Huxley's case consisted in selling large editions of his books. Mr. Lang suggests as a respectable martyr one Thomas Aikenhead, aged 20, who was hanged at Edinburgh in 1697 for alleging that Ezra wrote the Pentateuch. In these times Thomas would have said he had been inaccurately reported. Dr. A. S. F. Grünbaum, the gentleman who assisted Professor Sherrington in his performance to the Liverpool chemists, must have been pretty sure of a sympathetic hearer when he defended himself to the Home Secretary by alleging an error on the part of the *C. & D.* reporter. But what puzzles me is to distinguish the difference in delinquency between experiments made during the lecture or after it.

The Possessive Case

in connection with a compound medicine was at one time held by the Board of Inland Revenue

to be conclusive evidence that the medicine was liable to medicine-stamp duty. As the administrators of that Act seem inclined to work round to that opinion again, it may be advisable to refer to a discussion which occurred about the end of the year 1837 and early in 1838. The question arose first in Scotland in reference to such popular medicines as Bland's pills, Christison's pills, and Hamilton's pills. The Commissioners insisted that such titles held out the medicines as nostrums or proprietary medicines, and therefore liable to stamp-duty, but after some discussion they intimated that they would "concede" the use of the title, provided the formula were published on the label, or, in the case of Bland's pills, if a statement appeared on the label that these were prepared in accordance with a formula in the French Pharmacopœia. Subsequently they agreed to a compromise such as "Iron Pills (Bland)" or "Aperient Pills (Christison)." This was generally accepted by the trade, but the *C. & D.*, not satisfied that there was any need for concession at all, submitted a case to Mr. (now Sir) R. B. Finlay, Q.C., now Attorney-General, and published his opinion on February 11, 1838. It was quite definitely to the effect that the mere use of the title Bland's pills, under the circumstances, did not render the medicine liable. Counsel's view was that "though in their original sense the words might convey an idea of proprietary right, yet in their current use they merely described the article sold." In the event of any new attack, the Board might be reminded of this opinion. I can hardly fancy that they would care to defy the opinion of their own legal chief, or, that if they did, any ordinary bench would uphold their temerity.

The Council Contest

this year is a disappointment. Messrs. Campkin, Morrison, and Pickering are, no doubt, capable men, but they are not standard-bearers; they do not represent any great principles or new policy. Besides, we are getting dainty; have we not a right to look for something like a novel programme from someone once at least every twelve months? *Toujours perdrix* palls. Where, too, are the Scotchmen? Four candidates last year and none this time. Scotch pharmacists have only themselves to blame on each occasion if they get less than their fair representation. And no new man from Lancashire this time; surely the red rose is not fading. With half the intelligence of the country, the county Palatine has only a fifth of the seats. It is to be hoped that the three new candidates will be able to hit on at least one grievance each, even if it is only a little one, or I do not know what is to become of poor journalists.

Bottle-collecting

appears to be coming into fashion, at least in America. I gather this from an attractively illustrated article in the *Century Magazine* for April. The cabinet of bottles there shown does not strike me as so prettily arranged as it might be; not nearly so pleasing to the eye as many a chemist's showcase. But the authoress dilates enthusiastically on the charm of the bottle (the empty one is meant), and on its infinite variety of shapes, colours, and uses. It is to his bottles that the chemist owes much of the picturesque-ness of his pharmacy; perhaps his gold labels assist the effect, partly by colour, partly by mystery. But I think even more effect might be produced by a greater variety of style. I would like to see some of the ancient forms of apothecaries' containers restored to our shops, so that, if possible, each shelf should bear jars and vases and bottles distinguishable by sight as well as by touch from those on the neighbouring shelf. It might not pay, but a pharmacy so fitted, and with Chippendale cabinets holding perfumes and specialities put up in style to match, would be curiously attractive.

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The New Taxes.

THE annual Budget cannot fail to excite interest in the mind of every taxpayer; it is generally of some special

concern to the trader. We all knew this year that there would be heavy charges to meet, and nobody whose opinion is worth noticing has complained that the Chancellor of the Exchequer has thrown too large a proportion of the anticipated deficit on the current year. Sir Michael Hicks-Beach proposes to pay about one-ninth of the cost of the coming year's war, and leave the rest to posterity. Posterity will, no doubt, have its own burdens to bear; but it is not unreasonable to saddle it with some of the expense of what we are doing for it. We see no reason to quarrel with the Chancellor as to the exact ratio.

The taxes which are most resented are those which are directly appreciated. The extra penny on the income-tax and the doubling of the cheque-stamp will sting hundreds of thousands of people scores of times in the year. Every dividend paid to them, and every cheque they draw, will remind them of these taxes. But it can hardly be said that these imposts are unreasonable under the circumstances. The cheque-stamp is arousing a great deal of indignation, and the Chancellor is already indicating a willingness to climb down a part of the way if the pulling is continued, but nobody can allege that it is not a fair average apportionment of the national burden, so far as it goes. The private individual who draws a hundred cheques a year is, roughly, in about twice as good a position as the one who draws fifty, and the importance of businesses as at present conducted might, with at least equal accuracy, be measured by their cheque-books. Whether the result will be worth to the Government the annoyance the tax will cause, is a matter for them to consider; but certainly if businesses ought to be taxed at all, it would be difficult to hit on a simpler method of accomplishing this than by surcharging their cheques.

But the third tax—the 3*d.* per cwt. on imported grain and the 5*d.* per cwt. on flour—is a very different matter. It is difficult to over-rate the significance of this duty. The amount, it is true, is trivial—although from immediate indications it seems likely to work out at nearly a 10-per-cent. rise to the consumer—but it is not in the amount wherein the true significance lies. The proposed charge is only a fraction more than the registration-duty, which with even Cobden's and Gladstone's acquiescence, remained in force long after the corn-duties had been practically abolished, say the apologists for the new tax. How can you term that a protective duty? they ask. As such it is true it is almost valueless, though columns of Sir Michael's sophistries will not make the foreigner pay our import-duties. But the importance of the charge lies in the fact that it is an indication of policy: it is an outward and visible sign of the triumph of the protectionist party in this country. The leaders of that section openly accept this as an instalment, and as nothing else. For good or for evil they have for long pressed their views on Governments, and they will not willingly yield the vantage ground they have acquired from this Budget. That Sir Michael Hicks-Beach is at least half a convert to their views is clear from his speech. The choice of corn for import-duty is the boldest challenge that could have been offered to free-traders. If a temporary tax only had been intended it would have been far simpler and more productive to have doubled the sugar-duty. The very name of a corn-duty is ominous.

Free trade is an economic, not a political, subject. The repeal of the Corn Laws in 1846 was once described as the bagman's millennium. Whether it was a mistake or not, its apparent result was an immense stimulus to Britain's prosperity. Able men are now disputing that this was due to free trade. We do not enter upon that question here. But it is fair to expect that those who take part in the controversy should first familiarise

themselves with the arguments which were fiercely maintained and combated in the early part of the last century, and which have been so long laid aside that they are now more than half forgotten, as is evidenced by the comments on the Budget which have appeared in many newspapers.

Anti-substitution.

THE question of substitution touches closely the interests of all manufacturers of medicinal specialties, on whose behalf much indignation has been expressed, especially in the United States. British proprietary-medicine makers have never been so rabid on this point as their American *confrères*. The latter appear to have the notion that when they gratify humanity with some remedy for the lungs, liver, or stomach, each of these organs becomes his own peculiar province—at all events, in association with the pill, emulsion, or cure which he has fixed up for it. The British maker, as a rule, regards competition with greater equanimity; he may worry himself about the “just-as-good” fraternity, but he takes care to keep that to himself, and keeps on telling the public that when they want the thing done well they should take the pill or whatever it may be. This, we fancy, is the better policy for Great Britain. After all there is not much substitution, and bare-faced imitation is rare. By substitution we mean palming off one's own article when another is asked for. Gleaning is more prevalent; it is the old and universal policy common to all trades of meeting a popular demand for an article—whether pills, pianos, or pinafors. Each has had its introducer, and if the trade in the article had remained with him we should have had neither variety nor profit in trade life. But the medicinal-speciality maker is peculiar. After building up a business of local or worldwide magnitude, he finds—or thinks he finds—his efforts dwarfed by the Machiavellian schemes of the substituting retailer. It is certainly unfair for a trader, by questionable methods of suggestion and presentation, to endeavour to reap the fruit of his opponent's outlay of brains and treasure. Direct imitations of a neighbour's specialties not only show an unbusinesslike want of originality on the part of the imitator, but they are transactions of debatable commercial morality. If, however, those who, in season and out of season, denounce the retailer who prefers to sell his own proprietary in place of the more widely advertised article of his rivals, were to study the subject in all its bearings, they would probably find that the “substitutor” properly so called is as rare as we have said he is. A writer in a recent issue of *Printer's Ink*, who draws a ridiculous picture of the “intense hate” felt by the druggists of the United States for patent-medicine manufacturers, remarks of American druggists:—

Many druggists make no bones about saying they never sell a patent medicine if they can possibly help it, and as most customers have more confidence in the smooth argument of the drug-clerk than they have in the advertising, the aggregate result is a tremendous loss to the advertisers.

There is seldom any attempt made to substitute. When the customer leaves the shop he knows exactly what he has bought, and if he has not got what he asked for ten chances to one he is quite as well satisfied. It is against human nature for any business man to sell an article on which he has no profit in preference to one on which he gains pecuniarily. And that is the crux of the whole question. Those manufacturers who assure their distributors a fair remuneration for their overturn have no complaint to make of substitution. The *Printer's Ink* writer says the cut-rate stores are mostly responsible for substitution, and points out that the

smaller druggist cannot be blamed for not caring to sell advertised goods for less than they cost him:—

He has no confidence in advertised goods, and believes that the advertiser sells the medicine to the cutter at lower prices than he does to him, so he starts to get even and knocks with a vengeance, and generally succeeds.

This further tribute to the power of the personal element in pharmacy from a unympathetic observer who asserts that he knows "nearly every druggist from Los Angeles, Cal., to Spokane, Wash.," is worthy of note. He admits that before a proprietary article can be successfully vended there must be harmony between manufacturers and distributors. Having come to this conclusion it is astonishing to find that "the most practical plan" he can evolve for stopping the cutting and restoring harmony is the coercion of the druggist. He advocates that the largest manufacturers of advertised medicines form a corporation and establish a drug-store in every city of importance in the United States, and ship their goods direct to the corporation stores, and distribute through them only. Should the druggists doing business with the same town as the corporation store "desire to be fair, and offer their goodwill in selling the corporation goods," this genius would magnanimously allow them to do so, but a careful outlook should be kept for substitution, and the faithless druggist when caught should be placed under the ban. Druggists being an unprogressive class, the corporation store, he predicts, would in a short time become the leading store and set the standard of prices for the druggists of the community. We can imagine no scheme which would be more calculated to stiffen the back of the most supine druggist than this one. The corporation store, continues the prophetic writer, would be able to pay better wages and thus obtain better assistants. Good assistants would jump at the chance of a situation which did not depend on deerying advertised goods, and "this plan would raise the standard of the drug-clerk." This is an echo of the consideration which some in the American drug-trade are giving just now to the company-trading principle as carried on in the British drug-trade. Some seem enamoured of it, and wild-cat schemes are prevalent at present for imitating Mr. Jesse Boot. That is the only thing we can mention to account for the *Printer's Ink* writer's idea of meeting substitution by attacking the very people whom manufacturers should conciliate.

Methylation in Natal.

WE are indebted to the Commercial Department (Intelligence Branch) of the Board of Trade for the loan of documents which they have received in regard to business in methylated spirit in Natal. The regulations previously made in 1897 have been rescinded, and under last year's Excise Act the Governor in Council has issued two notices, Nos. 128 and 130. The first deals with manufacture and storage. No distiller may methylate less than 270 gals. of spirit, of not less than 59° above proof, but spirit of 64° above proof or over may be methylated for use in the arts and manufactures in quantities of not less than 54 gals. The quantity to be methylated at any time must be a multiple of 9 gals., and the wood naphtha to be employed should be 60° above proof, and contain not less than 80 per cent. of methylic alcohol. We may note that in the United Kingdom the wood naphtha must contain between 72 and 80 per cent. of methylic alcohol and certain minimum quantities of other ingredients which give the deleterious character to the methylated spirit; the Natal authorities make no provision of this kind, but stringent regulations are made as to the examination of all materials employed and the supervision

of the work of methylating. The Regulations provide that—

Imported methylated spirits mixed with any ingredient or substance of any description or kind whatsoever on being landed must be placed in an approved warehouse, and not be removed until a sample has been examined and certified by the Government chemist. The cost for conveying or examining samples and for marking packages is to be paid by the importer before the spirits are removed. Each package or vessel must be legibly marked in letters of not less than one inch in height, with the words "Methylated spirits" painted in oil colour. Crude methylic alcohol or imported methylated spirits must be contained in vessels not exceeding 100 gals. capacity.

The regulations as to sale of methylated spirit state that it is a mixture of 9 gals. of spirit of wine, not less strength than 59° above proof, and 1 gal. of wood naphtha. As already stated, spirit of not less than 64° above proof may be used for the arts and manufactures. The provisions as to the sale of methylated spirit by methylators and retailers are similar to those at home, but no quantity less than 2 gals. may be removed from licensed premises, and every vessel containing spirit must bear a printed label in legible letters stating the seller's name and description of contents. Licensed retailers are required to keep in stock a minimum or maximum quantity which is not specified in the regulations. The Excise has power to take samples not exceeding 1 pint on payment of the cost-price if demanded. These regulations indicate that the Natal restrictions on the sale of methylated spirit are intended to prevent its consumption by Kaffirs and depraved persons, whose purchasing-power does not amount to 2 gals. at a time.

RUSSIAN PHARMACY.

The celebration at St. Petersburg of the 200th anniversary of the opening of the first public pharmacies in Russia (see page 594) has called forth a number of historical notices on Russian pharmacy. It appears that the first foreign doctors who ventured into Russia about the end of the fifteenth century were both executed, but in spite of their untimely end a few doctors were practising in Russia in 1523. The Czar claimed their services almost exclusively for himself, and only allowed others to consult them as a special favour. During the reign of Ivan IV. the Terrible, Queen Elizabeth of England sent the English doctor, James Trengham, to Moscow, and he established the first court pharmacy. Under Boris Godunoff and Michail Feodorowitsch medicine developed more and more, and in 1615 a few doctors were appointed to the Army. In 1620 a special institution, called the "Aptekarski Prikas," was founded, which performed many-sided functions. The doctors were subservient to it, and the pharmaceutical store was under its control. There were besides so-called alchemists, "who devoted themselves to the lock and clock making arts," and men were specially appointed to collect medicinal herbs. The second court pharmacy was opened in 1641. The appointments, plant, &c., of the court pharmacies at this time were very good. The chief pharmacy had a staff of forty men, and about 20,000kr. was paid out yearly—a large sum for that period. By this time Russians were admitted to the "Aptekarski Prikas," but they had to pass an examination. Their salary was, however, only 9r. yearly and 6 kopecks daily for board, whereas the foreign doctors received 700r. In 1692 Posnikow, the first Russian doctor, obtained the doctor's degree at Padua, and obtained permission on November 4, 1701, to practise in Russia. On November 22, 1701, Peter the Great granted the concession for the opening of eight independent pharmacies, and this is the occasion which was celebrated last month.

HISTORICAL PHARMACY.

The example of Mr. John Austen, of Sheffield, in collecting details of the old druggists of his town is to be commended

to the Presidents of other local associations. Mr. Ansten has bought to bear on his task a rare archaeological taste which it is not given to every chemist to possess, but this should not deter the historians of pharmacy from attempting to compile a record of local pharmaceutical progress. The work of Jacob Bell and Professor Redwood, who produced the very readable "Progress of Pharmacy," might be taken as a model, but for local historians the method adopted by the President of the Sheffield Society is inimitable.

LOMBARD STREET SIGNS.

The *Daily News* mentions that the firms in Lombard Street are to have a Coronation exhibition of signs that have been used at various times in that historic street. Amongst the signs we learn is one of the "Mermaid," the name under which one Edward Delves sold patent medicines. Who was Mr. Delves, we wonder? In more recent times one of that name was party to an important case under the Pharmacy Act bearing upon the sale of proprietary medicines. Is he a descendant? It is interesting to recall the fact that Robert Turlington, maker of balsam of life, was in business in Lombard Street early in the eighteenth century. His balsam was the subject of a patent granted in 1744. Perhaps he was Delves's successor, as there was no other patent-medicine dealer in Lombard Street at that time. The "Plough" was another Lombard Street sign, and gave the name to Plough Court—historic chiefly on account of the old-established business of Messrs. Allen & Hanburys, which has its headquarters there.

AUSTRIAN PATENT LAW.

Mr. Ivan Levinstein, President of the Society of Chemical Industry, calls attention to the fact that by decrees of the Austrian Ministry of Commerce recently published and dated June 30 and October 10, 1900, fifteen patents of the Badische Anilin- und Soda-Fabrik were revoked on the ground that the patented articles were not manufactured in Austria, but imported from abroad. The patents referred to were for the production of artificial indigo, but the interest lies in the fact that the decrees give a clear idea of the "compulsory working" clause of the new Austrian patent law. The Austrian authorities laid it down that where a patent is being worked abroad, the holder must commence to work it on a manufacturing scale in Austria within a year, and that the public demand for the patented article has not to be considered. The decision will lead to the establishment of new trades and manufactures in the Austrian Empire, and a like result would, it is thought, result if the "compulsory licence" clause of the Patent Bill now before the House were replaced by some such provision as the following:—"A patent may be revoked by the Board of Trade if it is proved that the article patented in this country is made abroad and not in the United Kingdom."

CANCER-RESEARCH.

A draft scheme of organised research on cancer, formally adopted by the Royal College of Physicians on March 24, was approved by the Royal College of Surgeons on April 10. A fund is to be formed to promote investigations into all matters connected with cancer and malignant diseases by the establishment of laboratories, encouraging research, and assisting in the development of cancer-research departments. Should the discovery of the cause and nature of cancer be attained, and effective treatment be devised, the fund may be used for equipping hospitals for such treatment and for helping forward research in other diseases. Rules for the administration of the fund have been drawn up. The General Committee will have upon it representatives of the Local Government Board, the Colonial Office, the Royal Society, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, the Royal College of Physicians

of Ireland, the Royal College of Surgeons in Ireland, and the Royal Veterinary Colleges of London, Edinburgh, and Ireland. It now remains for the money to be found wherewith to begin the work, and there seems every likelihood that it will be forthcoming. The Goldsmiths' Company have promised 5,000*l.*, and two other donors have offered the same amount. A feature of the scheme is the provision made for exchanging communications with workers in other countries, and in this way a friendly rivalry is sure to be promoted as to which country shall have the glory of solving the cancer-problem.

ZINC-OLEATE POWDER.

A complaint as to the zinc oleate of the Pharmacopœia is made by a correspondent of the *British Medical Journal*, as follows:—

Oleate of zinc, especially in the shape of powder, is of great value for many skin-affections, such as trade-eczemas, but I have had almost to abandon prescribing it, as I find my patients are so frequently receiving from druggists wherever they go a coarse, rancid-smelling powder which is useless and sometimes injurious. The dispensers try to persuade me that the powder is good, but not fine enough, and that it should be applied as a dust through muslin. Several months ago I secured a very satisfactory powder prepared by a certain chemist, called the oleo-palmitate. For a while there were no complaints when I prescribed this preparation and sent my patients to one particular firm of chemists acting as agents for it; but to day I have received a complaint and find it is due to this firm again giving my patients the ordinary oleate of zinc (B.P.) instead of the preparation which I had specially prescribed. Two months ago, in order to prove whether the objectionable smell and appearance of the British Pharmacopœia preparation was due to some chemical decomposition which might be common to the oleates, I made some experiments. Several samples were placed in different boxes and bottles, and some of the oleo-palmitate was placed in a chip box still containing a little of the ordinary rancid-smelling oleate to see if it would take on the same decomposition. An examination of the various samples gives to-day the following results: The oleo-palmitate in bottle, perfectly good; the same in box containing some of the British Pharmacopœia oleate, a shade yellow but otherwise unchanged; all the samples of this preparation were neutral, whereas all of the ordinary oleates, including a fresh sample from the shop as well as another supplied to a patient this week, were unfit for use.

The complaint of the bad-keeping qualities of certain kinds of zinc oleate is not new, but there is no difficulty in obtaining the finely powdered and well-keeping variety.

"The Art of Dispensing."

SUBJOINED is from a review of the sixth edition of this work which appears in the current issue of the *Practitioner*:—

The exceedingly numerous additions, comprising about 200 pages, which have been made to the sixth edition of this work practically convert it into a new treatise. Although intended primarily for the dispensing chemist, it is for the prescriber a most valuable auxiliary to such books as Squire's "Companion" and Martindale's "Extra Pharmacopœia." Without the help afforded by a book of this kind we do not quite understand how one dare venture to prescribe many of the newer remedies in the newer forms of administration with any degree of certainty as to the result. It is true that the many-shot blunderbuss prescription belongs to the past; but there is not a little reason to fear that the art of extemporaneous prescribing will soon belong to the past likewise. Unless the physician cultivates a close acquaintance with the *matéria medica*, he will get into the habit of using a very restricted number of drugs or become the creature of the enterprising wholesale druggist. "The Art of Dispensing" provides a more than adequate amount of information concerning all the more recent forms of medication, and it is given in such a practical manner as to be eminently useful to those who prescribe as well as to those who dispense. Tablets, pastilles, capsules, bougies, pessaries, pastes, jellies, salve-mulls, and plaster-mulls are fully described, and the methods of manufacture explained. The idiosyncrasies, if we may use the word in this connection, of drugs are treated very fully; after perusing—say the paragraph on spirit of nitrous ether—no one would be in danger of falling into the many pitfalls besetting the prescriber of even this old-fashioned remedy. An excellent feature is the number of tables containing much information on solubilities, the interaction of organic chemicals, constitution and composition of morphine and quinine salts, etc. . . . Mr. MacEwan has produced a work which is quite indispensable to the pharmacist; it is also full of practical aids to the physician.

Wayside Medicinal Plants.

By JOHN R. JACKSON.

IN days gone by, when every country housewife not only grew in her own cottage-garden the plants required to furnish the medicine of the family, but also prepared her own decoctions and infusions, the country-people had more interest in, and knew more of, the value of native plants than is to be found in the rural districts at the present time, notwithstanding the advance of general knowledge. Indeed, the system of progressive education which has caused country-folk to flock to the towns to attain that instruction has displaced from their minds the more simple object-lessons which surround us, and lie at our very feet in the hedge-rows and open fields of our rural districts.

At this season of the year these thoughts are more impressed upon us, as all Nature is now showing signs of returning life after the torpor of winter, notwithstanding that many plants have persistently continued in flower since September. The smaller periwinkle (*Vinca minor*) has been



LESSER PERIWINKLE (*Vinca minor*).

the most prominent example in this respect, the hedge-banks being studded with its bright flowers. It is surprising, as these wild plants make their appearance, to reflect how many of them have had a reputation in former days for some valuable medicinal property. The periwinkle (which is only considered a denizen in this country), though belonging to a dangerously poisonous family like the *Apocynaceæ*, has long had a reputation as a medicinal plant, on account of its astringency and bitter taste—the former when dried, and the latter in a fresh state. On account of this astringency it was formerly much extolled for arresting hæmorrhage, either by introducing the bruised leaves into the nostrils for stopping bleeding of the nose, or by the administration of an aqueous decoction internally for hæmorrhoids and chronic diarrhœa. In much earlier times it was considered very efficacious as a gargle in inflammatory sore throats.

Lamium purpureum (the purple dead nettle) is another plant which is now in full flower in this neighbourhood. We are apt to pass over such a well-known and common plant as being of little or no interest. It has been used—probably on account of its heavy and disagreeable odour, especially when bruised, and its nauseous sub-astringent taste—in dysentery, pleurisy, scrofula, &c., being taken in the form of a decoction; besides which its external application has been recommended for reducing swellings, or to heal wounds, ulcers, burns, and scalds. In some parts of Northern Europe the young shoots are eaten as food in the form of greens.

A third plant which has lately been showing its modest white flowers from its shady habitation in the green hedge-

banks is the wild strawberry (*Fragaria vesca*), the parent of the plant which yields the luscious dessert-fruit of our



PURPLE DEAD NETTLE (*Lamium purpureum*).

gardens, which is not only valued for its delightful flavour, but has the advantage over most other fruits that it may be eaten freely without producing ill effects. The medicinal value of the strawberry is due to its mucilaginous, slightly acid, and saccharine nature, so that it can be used in the preparation of a cooling and aperient beverage. Strawberries have been recommended as a valuable food-product for gouty subjects. The roots are slightly styptic, and have a bitter taste when dry; the leaves have astringent properties, and both roots and leaves at one time had the reputation of being diuretic and deobstruent, and they were formerly employed in jaundice, diseases of the urinary passages, diarrhœa, and other affections; besides which the bruised herb was applied as a poultice to old ulcers.

A widely known and much-esteemed plant which is already sufficiently abundant to make its presence known by its sweet smell is the violet (*Viola odorata*). In both the blue and white flowered forms the plants are equally plentiful in the Devon hedgerows. The well-known fragrance of the petals is lost in drying, and to the taste they are slightly bitter and mucilaginous. The leaves and roots are also mucilaginous, and the latter at one time had the reputation of possessing similar properties to ipecacuanha, and were further used as a purgative. A syrup prepared from the flowers has been recommended as a mild laxative for children. At the present time one of the chief uses of violet-flowers is for crystallising as a sweetmeat for dessert.

Lympstone, Devon.

WILD STRAWBERRY (*Fragaria vesca*).

"PHARMACEUTICAL FORMULAS."—We are now binding this work entirely in black buckram, which experienced librarians find is more lasting than leather. The price of the work remains the same—7s. 6d., by post 8s., from our offices, or for the published price from any wholesale house.

ACCORDING to Mr. Peach, of the Geological Survey, the "American invasion" is of ancient origin. He has been telling the Glasgow geologists that the fossils of the Cambrian strata of the North-Western Highlands "are markedly American in facies," from which he infers free migration of species along the shore-line of a continent that lay across what is now the North Atlantic Ocean from America to Arctic Europe.

An Assistant's Experience.

Monte Carlo and the Riviera.

AS a Riviera resort Monte Carlo is known the world over by reason of its Casino, and it is hardly necessary to say that its position geographically is at the extreme south-east of France, in the tiny principality of Monaco, wedged in between Nice and Mentone, and in sight of the island of Corsica. Pharmacy here may be taken as typical of pharmacy generally along the littoral of the French Mediterranean.

The rise and development of the towns which now adorn the French and Italian Riviera has been one of the most striking facts of modern times. Hyères, near Toulon, was the first spot favoured by English visitors; then Cannes, Nice, Monte Carlo, and Mentone sprang into prominence. The fame of all these places as winter health-resorts spread with remarkable rapidity. Physicians advised their consumptive patients to shun the horrors of the northern winter and spend a few months in the life-giving sunshine on the golden coast. To-day, not merely invalids, but crowds of sybarites from all lands flock to the southern towns, which reap a rich harvest from their foreign guests, and as a consequence their needs are those which are most assiduously studied. The general tradesman originally could adapt his business to the wants of his customers without much difficulty. The Britisher cared little so long as he received what he wanted, and the shopkeeper was equally indifferent providing he made his 100 per cent. profit. But in the case of the pharmacist the matter was not so simple. The aristocrat afflicted, let us say, with the gout would leave a prescription for his favourite alkaline mixture with the French pharmacien. It might be an ordinary 8-oz. tablespoonful mixture; he would be startled to receive 2 oz. of a dark oily fluid in a wide-mouthed bottle, labelled "Usage externe," with, perhaps, a glaring skull and crossbones, just to remind him that man is but mortal, and that even gout is preferable to sudden death. Evidently such a state of things could not endure. The French chemist imported English drugs, and then began to employ English assistants, and to-day, in every business aspiring to the title of "Pharmacie anglaise," the staff is augmented by one or two Englishmen, and sometimes a German.

To one coming to the South for the first time the experience is akin to commencing the studies for the Minor, and the extent of one's ignorance seems appalling; but slowly the difficulties begin to disappear as the nomenclature becomes familiar, and soon the English assistant is as quick as his French colleague in finding the galenicals in daily use.

Almost any proprietary article can now be obtained. Showcases and stands are full of home-made patents and remedies. Here and there a bottle of unknown shape catches the eye, or, it may be, some quaint wording on a label; otherwise, the interior of an up-to-date "Pharmacie anglaise" has a homelike and familiar aspect. It is satisfactory to note that foreigners from all parts have the greatest trust in English pharmaceutical products. In many cases their faith is sadly misplaced, as many old-fashioned and useless quack medicines which have no sale at home have a ready sale here. There are many strange sights, and it is not the least amusing to find in the poorer parts of the town, unfrequented by visitors, small druggists floating the sign "English chemist" with the utmost audacity, and endeavouring to further the delusion by a display of a few ancient bottles of essence of rennet and a card of antiquated tooth-combs.

As the season lasts only from November to May, the profits of the year have to be made in those months, and the prices in the Riviera season are good. Dispensing-charges are slightly in excess of those in Bond Street and other good London houses. The cachet is much in evidence on the Continent, and bids fair to oust the nauseating mixture altogether from the realms of elegant pharmacy. All patents retail about double the list-prices: thus, 1s. 1½d. articles sell for 2s. 50c., and the 2s. 9d. size for 5s. 50c. The French coinage constitutes no difficulty after a few days'

practice, the decimal system being in vogue, and everything reckoned in francs and centimes.

In the actual work of the pharmacy there is a sharp dividing line between the French and English departments. The English assistant works side by side with the French and German *employés*. His work at his own dispensing-counter differs widely from theirs, both in the substances used and the mode of preparation. French pharmacy has many strange characteristics; it is at once advanced and backward. Whilst the medical profession readily adopts all the synthetical preparations which are brought out, the people generally retain their faith in many of the older remedies, chiefly vegetable drugs. It thus happens that the French assistant during part of the day handles more rare chemicals than would be the case in most English pharmacies; at other times he may be employed in the preparation of some strangely unpharmaceutical compound, decoctions of herbs of no repute in England, infusions of lime-flowers, briar-leaves, marshmallow-root, &c. Wine is largely employed, and there is a syrup of almost everything. The stock is necessarily large, and it must be acknowledged that utensils are in most cases liberally provided. There is much to interest and many pleasures which are impossible to obtain in colder climates. To be able to rise at 7 A.M. and take a sea-bath before breakfast in the early days of January sounds rather like romance to the sojourner in the fog-bound isle.

The hours of labour in a season pharmacy are not excessive compared with those of the large cities. From 8 A.M. to 7.30 P.M. and 10 P.M. alternately, with one and a half hours for *déjeuner* in the morning, and the same in the evening for *dîner*, and alternate Sundays on duty, is the general order of things. Moreover, life is certainly much easier; one does not work at such enormously high pressure as the London or Parisian chemist. It is customary for an assistant to obtain a room in the vicinity and have his meals at a neighbouring restaurant or hotel. The food is generally excellent, and the savoury French dishes, with the plentiful supply of wine and fruit, will satisfy those with the most fastidious epicurean tastes.

The hours of leisure are pleasant; even the element of poetry creeps into the pharmacist's life when the day's toil is over, and he sits smoking his cigarette on the rose-covered verandah of a picturesque white villa on the shore of the blue Mediterranean, listening in the silver moonlight to the rich sonorous voices of strolling French and Italian musicians, who sing not of pill or potion! The Casino with its beautifully kept gardens is, of course, the centre of attraction to visitors of Monte Carlo, and the student of botany will find much to delight him, both in these gardens, and in those of La Mortola belonging to Sir Thomas Hanbury, which are situated about three and a half miles from Mentone on the road to Ventimille, and contain one of the finest floral collections in Europe.

The student of human nature will do well to enter the gilded salons of the Casino and watch the jewelled aristocrat rubbing shoulders with the ruined *roué* in the intense excitement of "rouge et noir" or "trente et quarante." It is as well, however, to leave what coin of the realm one possesses safely at home.

There are many places to visit on the free Sundays; Nice, the metropolis of the Riviera, is only fourteen miles distant—about three-quarters of an hour by train; and another hour's travelling brings fashionable Cannes in sight.

In the other direction, Roquebrune, Cap Martin, and Mentone are within a few miles, and are happy-hunting grounds for the pharmaceutical camerist, the brilliantly clear atmosphere, rich in actinic rays, being particularly suitable for photographic work. With a few dozen plates and a hand-camera he will be able to snap the glorious scenery on his rambles and take home some exquisite views, which will both charm his friends, and be a source of pleasure to himself in years to come in reminding him of happy hours and scented bowers.

To conclude. A season on the Riviera is good in every way for the young qualified chemist: besides enlarging his ideas and gaining some knowledge of the language, he gets an insight into continental pharmacy which, at a later date, he will be able to turn to profit and advantage in his own pharmacy wherever that may be established.

F. J. B. (133/11.)

British Pharmacy in India.

The Second of a Series of Articles on the Anglo-Indian Drug-trade.

BOMBAY is the commercial gate to India, and probably for that reason business there is gigantic in proportions and small in profits. It would be the happy-hunting ground for the "cutter" with profitable extras, were it not that extras sooner or later become necessities in India, if they catch on at all.

Bombay is sometimes spoken of as the "urbs prima in Indis," and is certainly, owing to its natural position, and from the scenic point of view, well named. The shipping facilities of its splendid harbour are quite up to date, and the arrival of the mail-steamers on Friday or Saturday each week, with their proportion of tourist passengers, are sufficient to ensure that the business life of the city does not

Indian houses are not averse to keeping the best of them alive. This is particularly true of

KEMP & Co. (LIMITED), OF BOMBAY.

This company was founded by a notable student of materia medica, Mr. David Skinner Kemp, who was one of the first apprentices in Scotland to become connected with the Pharmaceutical Society through the North British Branch. Mr. Kemp was then (1852) an apprentice with the late Mr. H. C. Baildon, and in 1855 he passed the Major examination. Shortly thereafter he went out to India, and in 1864 commenced business on his own account in Bombay. He took a keen interest in materia medica, and communicated many



THE STAFF OF MESSRS. KEMP & Co. (LIMITED).

stagnate. The buildings in the city are as fine as anywhere in India, and as there are more well-to-do English in Bombay than in any other city of the Indian Empire pharmacy flourishes. The city is a good one for all that pertains to medicine, the humidity of the climate (Bombay is an island during a part of each day) being responsible for some of the prevailing *ennui*, so that tonics, fatteners, and vital restorers are ever in demand. The prevalence of plague breaks out a few doors off. Disinfection by the public is fairly thoroughly done, and when it comes to official disinfection the quantity of mercuric chloride required is considerable. It should also be noted that, although homoeopathic medicines are in great demand in some parts of India, the feature of Bombay medicine is distinctly allopathy.

Those who speak of Indian native drugs as fast going out of fashion speaks truly, but it is noteworthy that Anglo-

papers to the North British Branch, the most important, as events have shown, being one on Goa powder. This was in the year he commenced business. Goa powder had been used in India for about a dozen years before that. It was introduced into Goa, on the East Indian coast, by a Portuguese merchant, and the Portuguese colonists of Goa used it successfully in treating Indian ringworm, so that a trade in the article sprang up, which came largely into Mr. Kemp's hands. The origin of the powder was not known, but it was suspected that it came from Mozambique, and that it was made from orchella-weed. This is how the name "Goa powder" was applied to an article which really comes from Bahia, in Brazil; and the reason why the Portuguese merchant had it was that formerly the powder was largely exported from Brazil to Portugal, whence it was distributed to the various Portuguese colonies. To the Portuguese it was known as Po de Bahia, and in Brazil "it has from time immemorial been as much a household god as hrimstone and treacle are to Englishmen." Mr. Kemp made it a commercial article, and sent home a pound or two to the North

British Branch, where it is still to be seen—a dark mauve powder that excellently testifies to the effect of light on the brilliant gold colour that the fresh araroba has. The indigenous department has ever since the foundation continued to be a feature of the business.

The business that Mr. Kemp established is now sumptuously housed in Elphinstone Circle, Bombay. When he first started he had as partners Messrs. D. C. Watcha and P. N. Powry, and the business was in 1882 converted into a limited company, Mr. Kemp remaining as manager until 1885, when he came home, and was succeeded in the management by Mr. J. Bristed, the son of a Margate pharmacist. Mr. Bristed held the position for four years. The present general manager (Mr. Alfred Pell) then took the helm.

The company's business is the largest of the kind in Bombay, and probably in India. Besides the palatial building in Elphinstone Circle, they have branches in Byculla, Cumballa Hill, and Esplanade Road. An idea of the staff that they employ may be gathered from the photograph which we reproduce. Mr. Pell is in the centre of the third row from the front, behind the tiny errand-boy. To his right sit Mr. J. Fraser, Mr. J. E. Bridgen, and Mr. R. A. Adams; and to his left Mr. T. de G. Derry, Mr. T. P. Liggins, and Mr. G. S. Drayton, who all hold responsible positions in the company's service. In common with another large Bombay business, Messrs. Kemp have a member of their staff as their agent and representative residing permanently in London. The firm have rather a reputation for "cutting" in the dispensing part of their business, the reason, it is said, being owing to the number of Parsees who are amongst the company's shareholders. In regard to the local feeling respecting this business, we cannot do better than quote from our correspondent's notes:—

"All departments are under home-qualified European supervision. Seated in Mr. Pell's cosy office, but for the artless punkah, it requires no effort to believe you are facing one of London's magnates, for staring at you from the wall behind the official chair are many telephones and speaking-tubes, and the incessant clicking of the 'Yost,' and 'Remington,' and 'Hammond' trickles into the room from the mysterious regions behind.

"In dispensing the firm hold a record second to none in India, the growth of this department necessitating the coming into being of a branch on Esplanade Road to relieve the pressure, the branch shortly afterwards being located in the premises of the late firm of Bolton & Co, general merchants, whose business Kemp & Co. purchased, and are continuing as general merchants, with dispensary attached.

"Local consumption is responsible for a very great demand for the firm's proprietary preparations, those tonics *par excellence* for enervating Bombay (Easton's syrup and Parrish's chemical food) having a very large sale. From a list of some four hundred proprietary preparations—several of them giving prominence to the attention the firm have devoted to indigenous products—the following may claim to be the most popular. Equatorial hair-douche, chemical food, Easton's syrup, dill-water, extract of chicken, Goa powder, and lime-juice and glycerin. The Equatorial hair-douche is quite the most pronounced European proprietary success locally.

"At the firm's extensive analytical and manufacturing laboratory in Armenian Lane one sees the latest and best in labour-saving machinery—vacuum-pans, disintegrators, juice-extracting machines, mortars with machine-driven pestles, mincing-machines for extracts of chicken, beef, and mutton, carbolic-powder machines, stills for the preparation of sweet spirit of nitre and sal volatile, and numbers of cunningly devised mills and machines, most of them of American manufacture.

"As with chemists' businesses all over India, Messrs. Kemp & Co.'s aerated-water department forms an important feature, the handling of syphons being a special departure which has proved a great success.

"The firm's drug-list enumerates some three thousand items, the catalogue also including surgical instruments, dental goods, electrical apparatus, radiographic apparatus, hospital and patients' requisites, microscopes, spectacles, medicine-chests, aerated waters, proprietary preparations, patent medicines, toilet and nursery requisites, foods and dietetic preparations, wines and spirits, chemical, physical, and

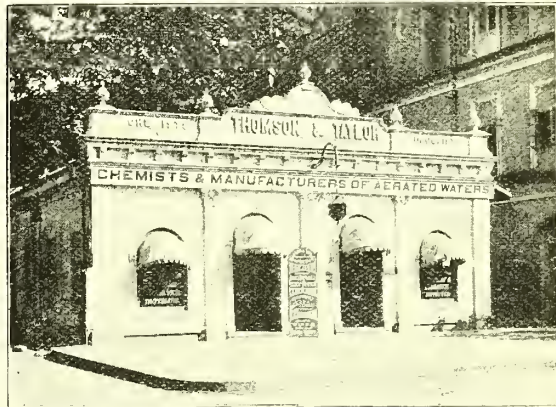
pharmaceutical apparatus, bacteriological and photographic goods."

The last mail brings a note that Messrs. Kemp's Esplanade branch is being removed alongside the Apollo Hotel—an improved position from a business point of view.

Esplanade Road, a leading thoroughfare of Bombay, is one of the best positions for trade that could be imagined. It is "on the front," and during the season many a tourist and traveller drops into the premises of

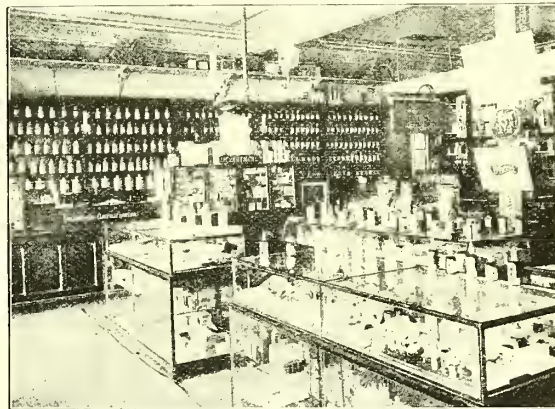
THOMSON & TAYLOR

to have a prescription dispensed, or get something else that savours of home. It is exactly thirty years since the business was founded by Mr. George Thomson and Mr. W. C.



35 ESPLANADE ROAD, BOMBAY.

Taylor, and at the outset they settled to do the best class dispensing and family business. In a short time they added branches at Kalbadavie and Mazagon. The headquarters establishment in Esplanade Road is an attractive building, of which we show exterior and interior views. The signs



INTERIOR OF THOMSON & TAYLOR'S PHARMACY.

proclaim the character of the business—those between the doors proclaiming that the firm are wholesale and retail chemists, importers of drugs and chemicals, infants' and invalids' foods, mineral waters, druggists' sundries, select toilet preparations, perfumery, and all kinds of brush ware.

The history of the business during its thirty years existence is one of steady progress, although in that time the management has changed hands on three occasions owing to deaths. Mr. Thomson died in 1878, and Mr. A. Taylor took over the business entirely, and carried it on with energy, until he died in 1880. A short time thereafter Mr. W. C. Taylor purchased the business, and carried it on until his death in 1891, the name and style of the firm being retained but the branches at Kalbadavie and Mazagon were disposed of. Mrs. W. C. Taylor continued the business for some time under the management of Mr. Charles Bradshaw Robinson, chemist and druggist, who in a short time acquired the

business from her, and has conducted it ever since. The pharmacy is a splendidly appointed one, and has nothing about it of the store character. Owing to its position "on the front" it draws a great deal of business from visitors, and has always made a speciality of supplying travellers' medical outfits.

Pending the arrival of photographs from other houses in Bombay, we may take a trip north to Simla and Lahore, where

FRANK BLISS & Co.

carry on business as chemists and manufacturers of aerated waters. Mr. Frank Bliss, the proprietor of this business, is a Scotchman and a half-brother of Mr. Tom Bliss, the



MR. FRANK BLISS.

proprietor of Messrs. E. Plomer & Co., whose portrait was given in the first of these articles. Mr. Tom Bliss is one of the best known men in Indian pharmacy. To his firm in 1878 Mr. Frank Bliss went out as an assistant, and there he remained until about the middle of the eighties, when he came home for two years' experience in England. He returned to India and in 1894 started business on his own account in Simla, and in April of last year bought the business in Lahore, where the aristocracy of India moves for the winter months. The

Lahore was business started some twenty years ago by Messrs. E. Gillon & Co. In the course of an interview with Mr. Bliss our correspondent gathered that he follows pharmaceutical affairs at home pretty closely. He said:—

"During my time in India the drug-trade has been completely metamorphosed. Twenty years ago the trade in Northern India enjoyed complete immunity from competition, and the rupee of that period was a fatter rupee than is the coin of the present, while now the competition is exceedingly keen by reason of the native largely taking to the drugs of the West as a livelihood."

"What about the bazaar drug-dealers, Mr. Bliss?" queried our representative.

"On the whole I know of no reason why the Britisher cannot hold his own with the native."

"Have you found any change as regards the source of supplies?"

"Yes. One of the most characteristic changes between now and then is the large quantity of German drugs which find a ready sale in India. Some pharmaceutical products from Germany are of the cheap and nasty order, and it is to be deplored that they should have been allowed the footing they have obtained in the country. This, in my opinion, is due to supineness on the part of the English wholesale trade more than to pushfulness of the German."

"What about assistants?"

"It is difficult to get assistants these last few years to come to India. This I think a great pity, because to good men there is a large and hopeful field."

"What is this due to, do you think?"

"Well, I should say that the Society in Bloomsbury Square is not doing that amount of good which Providence has placed within its compass. The examinations which men have to pass under the present dispensation are unnecessarily severe on the technical side; while the side on which the main chance lies—the trade side—is left severely alone. The Society I think should strive to make tradesmen of those who pass under their portals, as well as chemists,

and not leave it to chance whether they sink or swim in the struggle for life. Their policy appears to be essentially the one of "laissez faire," seeking nothing beyond the landing of bullion in the shape of entrance fees. My remedy would be transfusion of new blood at the Square, and a medicining to sleep of all the familiar prophets and duffers who now are held up as patterns for our imitation. It is notorious that the old time policy of the Society is what has caused the lack of youngsters entering the trade nowadays; but they do not appear to be conscious of it. If the *C. & D.* would take up this line and peg away at it steadily, they would be doing a great deal of good, not only to the individual, but to the trade generally, and we should hear much less about the increase of limited-company trading."

A Native Exhibit.

THIS is a photograph of the exhibit made by Messrs. Buttokristopaul & Co., native druggists, Calcutta, at the exhibition in Calcutta, for which we are indebted to Mr. Long, who is travelling for Messrs. Burroughs, Wellcome & Co. in India. Messrs. Buttokristopaul & Co. are reputed to be the most extensive exporters of chemists' goods in the country, their trade being largely wholesale as well as retail. The exhibit consisted of their special products, which include Indian arrowroot, of which a growing plant was placed in front of the exhibit, Edward's tonic or anti-malarial specific, which occupies the left half of the photograph, the miniature house being a model of the firm's Ghooghoo-danga garden, where the free distribution of Edward's anti-malarial specific and tonic takes place.

The photograph testifies to the remarkable enterprise exhibited by this firm of native merchants, who have worldwide dealings in things pharmaceutical.



WILL students ever be able to do "Marsh" without an explosion? A Brum. teacher thinks not. A lady had a narrow escape this week. The flask was blown to "smithereens," happily no one was hurt. Mr. Otto Hehner's suggestion of putting a plug of cotton wool in the exit tube for a distance of a few inches minimises all explosive risks.

A SLIP IN NOMENCLATURE.—Maid: "Cook's aunt has been took to the asylum, mum." Mistress: "I am sorry to hear that. What is the matter with her?" Maid: "She's gone mad, mum." Mistress: "Yes, but there are various kinds of madness." Maid: "Oh, yes; it is the religious mange, the doctor says." Mistress: "Did he not say mania?" Maid: "Perhaps he did, but I think it was mange."

Australasian Examiners.

WE give on the following pages portraits of thirty-four of the Pharmaceutical Examiners of Australasia, which appeared in the February number of *The Chemist and Druggist of Australasia*. The shortened biographical notes are arranged alphabetically:—

Mr. C. R. Blackett, F.C.S., is the senior member of the Pharmacy Board of Victoria, and has held the position of Examiner ever since its examinations have been instituted. Many years ago he entered the Victorian Parliament, and his connection with pharmacy has gradually become less direct. Mr. Blackett is Government Analyst of Victoria.

Mr. T. F. Brown, of New Norfolk, is a native of Tasmania. He was apprenticed to Mr. A. P. Miller, who then had the business at New Norfolk. Mr. Brown afterwards went to England, where he passed the Minor examination. After remaining in England a few years, Mr. Brown returned to Tasmania, and purchased Mr. Miller's business. He is Examiner in Chemistry to the Pharmaceutical Society of Tasmania.

Mr. Walter J. Clewer is the Examiner in Dispensing for the Pharmaceutical Society of Tasmania. Mr. Clewer served his apprenticeship in Hobart with the late Edward Ash, and was for some seven years with Mr. A. P. Miller. He afterwards managed the business of the late Henry Hinsby, which he carried on in conjunction with the widow for some years, afterwards purchasing it.

T. Storie Dixon, M.B., M.Ch., Edin., is a native of Sydney, and took the arts course at the Sydney University. At Edinburgh he took the science and medical courses, and subsequently studied at Dublin, Berlin, Vienna, and Strasburg. Dr. Dixon examines in materia medica for the N.S.W. Pharmacy Board.

Mr. R. P. Francis, proprietor of the wholesale drug business of Duerdin & Sainsbury, Melbourne, is the third son of the late Mr. George Bagget Francis, of the firm of Hearon, Squire & Francis, London. He was born in 1855 at the historic house of John Bell & Co., 338 Oxford Street, his father at that time being house-manager and head of the laboratory. After six years at the City of London School he was apprenticed to Mr. T. P. Gostling, Diss, Norfolk. Mr. Francis passed the Minor examination in 1876, and the Major in the following year. After Continental experience he entered the establishment of John Bell & Co., but in 1880 came out to Melbourne as assistant to his uncle, Mr. H. Francis, with whom he remained till 1897. In 1897 he took over the wholesale business of Duerdin & Sainsbury. Early in 1900 he was elected to the Pharmacy Board, filling a vacancy caused by the resignation of Mr. Henry Francis.

Professor W. A. Haswell, M.A., D.Sc., F.R.S., is examiner in botany to the N.S.W. Board. He was educated at the Edinburgh University, and became Curator of the Queensland Museum in 1880, a demonstrator of zoology and comparative anatomy and histology at the Sydney University in 1882, and has been Challis professor of biology at the same university since 1890.

Mr. A. J. Higgin, F.I.C., was born in Manchester in 1859, and received his education at Owens College, Manchester, where he studied for three years under Professor Sir Henry Roscoe, and at Zürich University. He is assistant-lecturer on chemistry at the University of Adelaide.

Mr. James Lacey served his apprenticeship in Birmingham and afterwards acted as assistant with Giles and Schacht, of Clifton. He passed the Minor in 1877, came to Australia in 1883, and ever since has been in business in Bourke Street, Melbourne. He was elected to the Pharmacy Board of Victoria in 1898.

Professor Archibald Liversidge, F.R.S., obtained in 1867 a Royal Exhibition at the Royal College of Chemistry and Royal School of Mines at London. He had a brilliant career at the School of Mines and at Cambridge, in 1872 accepted the position of Professor of Chemistry and Mineralogy to the University of Sydney, and in 1878 was elected member of the Senate. He has been closely connected with technical education in New South Wales for many years, and is examiner in chemistry to the N.S.W. Pharmacy Board.

Mr. T. S. Loney was born in the West of England, ap-

prenticed in London, and was afterwards with Allen & Hanbury, Plough Court. He received his pharmaceutical education at Bloomsbury Square, and passed the Major examination in 1876. After further experience at Plough Court, and a couple of winter seasons in the Riviera, he came out to Sydney in 1882. He took no active part in pharmaceutical politics until after the passing of the New South Wales Pharmacy Act, when he was elected a member of the Pharmacy Board, and was one of those appointed to conduct the first examination held under that Act.

Mr. Michael Mason is a Gloucestershire man, who served his apprenticeship at Salisbury, England. He passed the Minor examination in 1873. He came out to Tasmania about fifteen years ago, and has been ever since attached to the firm of H. T. Gould & Co., of which he is a partner. Mr. Mason has been Auditor of the Pharmaceutical Society of Tasmania for a number of years, and for the last two years one of the examiners.

Mr. A. J. Owen, of Geelong, was born at Bristol, England, on August 31, 1847. He was brought to Australia as an infant, and did not revisit England till 1878. He was apprenticed in 1852 to the late Hon. John Hood, father of Mr. Justice Hood, a man of considerable ability and force of character, and founder of the firm of Felton, Grimwade & Co. After serving his apprenticeship, Mr. Owen went straight to the business at Malop Street, Geelong, of which in 1880 he became sole proprietor.

Professor E. H. Rennie, M.A., D.Sc., Examiner to the S.A. Pharmacy Board, is a son of Mr. Edward Rennie, Auditor-General of New South Wales. He was educated at Sydney, and in 1876 was appointed mathematical and science master in the Brisbane Grammar School. Afterwards he went to London and studied chemistry at the Royal School of Mines, South Kensington, and in 1881 graduated D.Sc. at the London University.

Mr. W. Short was born at Auckland, and served his apprenticeship with Mr. G. Denby at the Thames, N.Z. After filling other positions in that colony, he came to Sydney in January, 1885, engaged as assistant to the late Mr. F. C. Turner, in Oxford Street, and was afterwards with Mr. W. Parker, of Balmain, as branch manager for a period of three years. He manages the laboratories of the Australian Drug Company, and was elected a member of the present Pharmacy Board three years ago.

Mr. Samuel S. Strutt was born in the county of Nottingham, England. He served his apprenticeship with Mr. J. R. Robinson, of Dewsbury, Yorkshire, and passed the Modified examination in 1869. In 1872 he came to Victoria, and has been connected with the Pharmacy Board since 1886.

Mr. F. Styant Browne is a member of the Council of the Pharmaceutical Society of Tasmania, and was one of the founders. He is the examiner in botany, and has done good work in that capacity. Mr. Browne is a Norwich man, and arrived in Sydney about 1882. He passed the English Minor in 1879.

Mr. H. T. Tompsitt, of Rocke, Tompsitt & Co., wholesale druggists, of Melbourne, was elected to the Pharmacy Board of Victoria in 1884, and on the death of Mr. George Lewis was appointed Treasurer of the Board, an office which he has held continuously ever since.

Mr. Jas. T. Weaver is a native of Hobart, and the proprietor of the business of Weaver & Co. He studied at the College of Pharmacy, Melbourne, and passed the Victorian Final examination. He was one of the founders of the Pharmaceutical Society of Tasmania, and has been an examiner since its foundation.

Mr. Howard Whitbread was born at Cheltenham, and was apprenticed to Mr. John Paget, pharmaceutical chemist, Loughborough. He passed the Minor in 1888 and the Major in 1890. In the year following Mr. Whitbread came to South Australia. From the first Qualifying examination in 1893 until the present date he has been associated with the Board as examiner, and as a member since 1896.

Mr. H. A. Woolnough received his first pharmaceutical training at Norwich, England, and passed the Minor examination in 1873. He then secured a position with the firm of A. S. Watson & Co., of Hongkong, and remained there until about 1888, when he came to Australia, and took a pharmacy in Swanston Street, Melbourne.



D. RANKIN.
VIC.



ALF. J. OWEN
VIC.



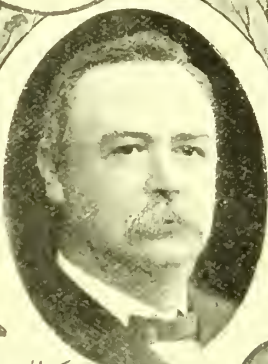
JAS. BRINSMEAD
VIC.



S. STRUTT.
VIC.



JAS. LACEY
VIC.



H. T. TOMPSITT
VIC.



R. P. FRANCIS.
VIC.



H. A. WOOLNOUGH.
VIC.



CARL EBERHARD
TAS.



WALTER J. CLEWER
DISPENSER TAS.



MICHAEL MASON
TAS.



T. F. BROWN
TAS.



F. STYANT BROWNE
BOTANY TAS.



A. L. TILLEY
DISPENSING W.A.



A. V. PARKES.
PHARMACY W.A.



E. W. MAYHEW F.L.S.
MATERIA MEDICA, BOTANY W.A.

PHARMACEUTICAL EXAMINERS
IN AUSTRALASIA.



J.A. HASLETT
MATERIA MEDICA NZ



H.B. KIRK, M.A.
BOTANY, N.Z.



PROF. EASTERFIELD
CHEMISTRY, N.Z.



GEO. MACMORRAN
SECTION A NZ



EMIL C. SKOG
PHARMACY
N.Z.



T.S. LONEY.
PHARMACY, NSW



PROF. W.A. HASWELL
BOTANY, NSW



DR T.S. DIXON
MATERIA MEDICA
NSW



PROF. A. LIVERSIDGE
CHEMISTRY, NSW



W. SHORT.
PHARMACY
NSW



F.W. SIMMONDS Q^o



GEO. WATKINS
Q^o



T.W. THOMASON
Q^o



A.B. CHATER
Q^o



J.A. YOUNG
ASSISTANT EXAMINER
SA.



PROF. E.H. RENNIE
MA, DSC
SA



A.J. HIGGINS
SA
CHEMISTRY



HOWARD WHITBREAD
SA
PHARMACY

PHARMACEUTICAL EXAMINERS
IN AUSTRALASIA

Analysis of Stomach Contents.

By HERMANN C. T. GARDNER, F.C.S., M.P.S.

VERY frequently in certain stomachic conditions it is desirable to test the motor power of the stomach. For this purpose a test-meal is given, and after a specified time the contents of the stomach are removed and analysed. It is desired to know the following facts, and the stomach contents are tested accordingly:—

(a) The condition of the fluid, whether it be acid or not.
(b) If it be acid, whether the acidity is due to free acid, acid phosphates, or both.

(c) If free acid be present, is it mineral, or organic, or both?

(d) If organic acids are found, what are they?

(e) Are albumoses present, or pepsin?

The first thing then which has to be found out is the condition of the stomach contents. This is easily ascertained by means of litmus paper in the ordinary way. A part of the fluid should be strained through muslin before further tests are applied, so that small particles of solid matter may be removed. A fresh portion of the strained liquid should be used for each test.

Supposing the fluid is not acid, albumoses may be tested for as described later. This having been done, the non-acid character of the fluid should be noted and communicated to the medical man. On the other hand, if the contents are acid the analysis may be proceeded with at length. The acidity may be caused by the presence of either free mineral (hydrochloric), or organic acids in the fluid, or by acid phosphates. The presence of free acid is first tested for by dipping a piece of Congo red paper into the fluid, the colour of which changes to blue if free acids, either mineral or organic, be present. As, however, this does not prove the absence of acid phosphates, another test must be employed; but if blue litmus be reddened and the Congo red paper remains unchanged, the presence of acid phosphates may be inferred. The remaining test depends upon the property which a carbonate possesses of neutralising free acid. Into a little of the fluid some chalk is introduced slowly; effervescence, if any, should be noted. The chalk is added until effervescence ceases, and a sufficient quantity has been used to completely neutralise any free acid present. The fluid is then filtered and again tested by litmus paper. If acid phosphates be present blue litmus is reddened after treating the contents in the manner described.

It must now be found out whether the free acid present is due to hydrochloric or organic acids, or both. Either the application of Boas's or Günzburg's tests will detect the presence of mineral acid. Five or six drops of the fluid is placed in a white porcelain evaporating-dish, and the same quantity of Günzburg's reagent added. Heat is applied, especial care being taken to avoid charring. The presence of mineral acid is indicated by the formation of a pink coloration on the margins of the dried residue. Boas's test is similarly applied, but instead of a pink colour being formed, a purple colour appears.

To test the fluid for the presence of organic acids some of it is shaken up with ether in a separating-funnel. The ether dissolves any organic acids present. To one part by volume of the fluid should be added five of ether. After agitation and standing, the ether containing in solution the acids may be separated from the fluid, and should then be divided into two portions and placed in suitable vessels, one of which is placed in hot water, and the other set aside for a time. until at the ordinary temperature the ether has evaporated. When the ether has evaporated from the fluid placed in the hot water, the residue is dissolved in a small quantity of distilled water and the solution added drop by drop to a little freshly-prepared Uffelmann's reagent contained in a test-tube. If the blue colour of the reagent turns to a more or less yellowish tint the presence of lactic acid in the stomach contents is indicated. The residue remaining from that portion, the ether of which has evaporated at the air temperature, is also dissolved in water and carefully neutralised with sodium bicarbonate. This neutral fluid is then divided into two portions, to one is added extremely dilute solution of ferric chloride, to the other a little piece of calcium chloride. If on the addition of the ferric chloride

a red coloration ensues, the presence of acetic acid is shown, whilst if on the surface of the calcium chloride oily drops are noticed, butyric acid is present.

It will be seen that the reason for allowing one portion of the ethereal solution to evaporate slowly at the air-temperature is that the application of heat would cause the evaporation also of acetic or butyric acids if they were present.

An important factor in the analysis is the determination of the amount of free acid present. This is accomplished by titrating some of the unfiltered fluid (any particles of solid matter in which have been broken up either in a mortar or by violent agitation) with decinormal soda solution. Any suitable quantity can be taken—say 10 or 20 c.c.—and the amount of decinormal soda solution required for neutralisation is noted, phenol-phthalein being used as an indicator. The titration should be repeated as a check. The result is sometimes given in terms of hydrochloric acid. Supposing in a titration 20 c.c. of contents take 8 c.c. of decinormal soda for neutralisation, and as 100 c.c. = 0.365 gramme of hydrochloric acid, the acidity of the stomach-contents equals 0.146 per cent. HCl. A simpler method of stating the acidity is to give it in the number of c.c. of decinormal soda solution required to neutralise 100 c.c. of the stomach-contents.

The final stage is to test for the presence of albumoses. In this case the fluid is first neutralised, then a little of it is placed in a test-tube previously rinsed with 10-per-cent. solution of cupric sulphate, excess of which has been allowed to drain away, by inverting the tube for a minute. An equal quantity of 10-per-cent. solution of sodium hydroxide is then added. If albumoses are present the solution assumes a light-reddish colour. If albumoses are absent pepsin may be tested for by comparing the digestive-power of some of the stomach contents with a standard fluid. To do this some grated hard-boiled white of egg is covered with a little of the stomach contents, which, if feebly acid or neutral, are acidulated by adding an equal quantity of a solution of hydrochloric acid (0.08 per cent.). Some more of the coagulated egg-albumen is covered with a 0.25-per-cent. solution of hydrochloric acid to which a few drops of a pepsin-solution have been added. Both are set aside in a warm place for an hour, and the results compared.

The special test-solutions referred to in the foregoing are prepared as under:—

Günzburg's Reagent.

Phloroglucin ...	...	...	2 grammes
Vanillin ...	...	...	1 gramme
Absolute alcohol ...	...	...	30 c.c.

It should be kept in the dark.

Boas's Reagent.

Resorcin ...	...	...	75 gr.
White sugar ...	...	...	45 gr.
Rectified spirit ...	...	...	1 fl. oz.
Distilled water ...	...	...	2½ fl. oz.

Uffelmann's Reagent.

Ten c.c. of 1-in-20 solution of phenol are mixed with 20 c.c. of distilled water, and (before use) a drop or two of tincture of perchloride of iron is added to produce an amethyst-blue.

Congo-red Paper

is prepared by steeping unsized white paper in an aqueous solution of Congo red of a strength of 0.01 gramme in 100 c.c.

An Optical Illusion.

MR. J. BARCLAY, Birmingham, asks *Nature* for an explanation of an effect he has observed, produced by refraction of air. While looking at a bookcase through the heated air rising from the chimney of a lighted lamp, the line of sight being a few inches above the top of the chimney, he noticed that one of the volumes appeared to project in front of the row in which it stood. Mr. E. Edser, to whom the observation has been referred, writes in reply:—

The illusion is obviously due to the refraction of light by a cylindrical column of heated air, which acts as a divergent cylindrical lens. The refractive index of the air of the room may be taken, roughly, as equal to 1.0003. If the heated air rising

from the chimney of the lamp has a temperature of 300°C ., its refractive index would, roughly, be equal to 1.00015. At the interface between the cold and heated air, the effective refractive index would be equal to 0.99985. Assuming the lamp-chimney (and therefore the column of heated air) to have a diameter of 1 inch, then the focal length of the cylindrical lens would be 0.00015. The distance of the book from the lamp was about 8 feet, or (say) 100 inches. Seen through the column of heated air, the distance v of the book from the lamp is given by the equation $1/v - 1/100 = 0.00015$, from which v is found to be 99 inches. The book thus appears about an inch in front of its true position; as observed by Mr. Barclay.

The Mortar.

Its Evolution.



I. THE STONE AGE.



II. THE BONE AGE.



III. THE BRONZE AGE.

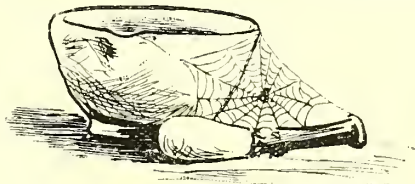


IV. THE WEDWOOD AGE.

Its Reminiscences: with Sketches.

By William Smart.

I AM of the perfect size for a mortar, neither large nor small, but serviceable and convenient. I regard No. 1 with ridicule and No. 12 with contempt! The intermediary



"I AM SHELVED."

numbers, ascending and descending, gradually improve as they reach the only perfect size, No. 8.

I am number eight!

When I was young—thirty years ago—I was pure as marble, my pestle was perfect, I was full of life and energy,

and eager for work. But, alas! my "clang, clang" will be



"MY MASTER AND I HAVE GROWN OLD TOGETHER."

thoughtful—and stony though I be I would fain mingle my tears with his.

It is, however, with apprentices that I have come most into contact, and about whom I wish to speak. All sorts and conditions of them have put their arms around me—



"HE SANG THE GOOD OLD SONGS."

is not an uncommon one. He went to Edinburgh, passed his "Minor" and "Major" with distinction, and then married the sweet maid. How happy I was! But, alas! not for long.



"HE WOODED A SWEET MAID."

The young wife soon died, the bereaved husband gave way to drink, and anon came home to die.

heard no more; like the proverbial dog, I have had my day. My pestle, which has long caused me anxiety, has at length snapped, and I am shelved. My master and I have grown old together. We started business in a wee Fifeshire village thirty years ago, and have been partners ever since, and I flatter myself that during that time I, at least, have made some noise in the world.

Ofttimes, when there is no one near, my master regards me tenderly, and we dream of the past together. We are sad—for it is the privilege of the old to be sad and

What a wreck! Ah, me!

I have handled many of the studious, serious, and solemn species. They have invariably done well in after-life. I am proud of them, but I did not love them as I did the jolly lucky-go-merry fellow. My chief grievance was that they did not pay me sufficient attention. They invariably had a book before them as they used me, and naturally I felt slighted. But in spite of their neglect I always think of their careers with pride. One is a professor and many are doctors.

The type of apprentice I detested most of all was the careless one. I have known him use the wrong ingredients, though fortunately of a harmless nature. Instead of allowing



THE CARELESS APPRENTICE.

me to mass the pills, he would endeavour to facilitate the process with his fingers, and, of course, ignominiously failed. I am glad to say few such have passed through my hands.

I do not wish to convey the impression that I was one-sided, and fit for pill-massing only. It was not so.

Nothing delighted me more than when my master's little children were perched by my side, and I became their playmate. They were all very fond of me, and many happy hours have we spent together. They are my sweetest memories.

Would that I could live them over again!

New Books.

Any book named in this list can be supplied post-free to any part of the world on receipt of the published price by the Publisher of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Caspari, C. *Treatise on Pharmacy for Students*. New ed. 19s. net. (Hirschfeld.)

Crew, H., Tatnall, R. R. *A Laboratory Manual of Physics* 7½ × 5½. Pp. 248. 5s. (Macmillan.)

Dye, F. *Lighting by Acetylene: Treatise for Practical Lighting Engineer*. 7½ × 5. Pp. 200. 6s. net. (Spon.)

Hughes, M. L. *Manual of Chiropody*. Ed. by William Dick-3d. (Eyre & S.)

Phillips, H. J. *Engineering Chemistry: a Practical Treatise for Analytical Chemists, Engineers, &c.* 3rd ed. 7½ × 5. Pp. 422 10s. 6d. net. (Lockwood.)

Sawyer, Sir Jas. *Contributions to Practical Medicine*. 3rd ed. 7½ × 5½. Pp. 209. (Cornish, Birmingham.)

Serviss, G. P. *Other Worlds: their Nature, Possibilities, and Habitability in Light of Latest Discoveries*. Charts, illus. 7½ × 5. Pp. 298. 6s. net. (Hirschfeld.)

Shenton, H. C. H. *Modern Treatment of Sewage*. Cr. 8vo. 2s. 6d. (Whittaker.)

Vines, S. H. *Student's Text-book of Botany*. 483 illus. New ed. 8½ × 5½. Pp. 838. 15s. (Sonnenschein.)

Walker, N. *Introduction to Dermatology*. 5½ × 8½. Pp. 301. 2nd ed. 9s. 6d. net. (Wright & Co., Bristol.)

Personalities.

MR. JOHN CLAY, chemical-manufacturer, has been re-elected to the Hebden Bridge Urban District Council.

MR. WM. UNDERWOOD GRAY, chemist and druggist, Rothwell, has been elected a member of the Urban District Council.

MR. JAS. RICHARDSON DAVISON, chemist and druggist, Gosforth, has been elected a member of the Gosforth Urban District Council.

ALDERMAN FREDERICK MASON, chemist and druggist has resigned his seat on the Rotherham Town Council on account of ill-health.

AT the graduation ceremony in the McEwan Hall, Edinburgh University, last week, Dr. Bertram Prentice, son of Mr. John Prentice, chemist and druggist, Nicolson Street, Edinburgh, received the degree of Doctor of Science. As a boy Dr. Prentice began the study of chemistry under Professor Perkins, F.R.S., at the Heriot Watt College, Edinburgh, and quickly showed exceptional ability. He was appointed Professor Perkins's private assistant, and, later, demonstrator in chemistry at the College. He had meanwhile matriculated at the Edinburgh University, and in April, 1893, graduated as Bachelor of Science. In the following year he was awarded the Baxter Research Fellowship, and went to Halle a. Saale, Germany, to work



DR. BERTRAM PRENTICE.

under Professor Volhard, where he stayed until 1895, when he proceeded to Munich to work with Professor von Baeyer, his research being on pulegon, the active principle of pennyroyal, which was communicated to the German Chemical Society. In June, 1895, he received the degree of Doctor of Philosophy, "Summa cum Laude," from the University of Munich, his thesis being on "Some Derivatives of Dimethylacrylic Acid and Phenylmethylpyrazolidone." It is interesting to note that his thesis for the Edinburgh doctorate was on the "Constitutions of Phenylmethylpyrazolidone and Phenyl-Methyl-pyrazolidone"—that is, hydro-antipyrine derivatives. Dr. Prentice was appointed chief of the chemistry department of the Royal Technical Institute, Salford, in June, 1896, and still works there.

MR. RALPH CASSIE, chemist and druggist, 49 Newgate Street, has been re-elected senior churchwarden of Christ Church, Newgate Street.

MR. W. F. ELLIS, chemist and druggist, 4 Grand Parade, Green Lanes, Harringay, N., has been elected a member of the Tottenham Urban District Council.

DR. CHARLES FORSHAW, F.R.S.L., of Bradford, having sent a poem to Queen Alexandra, has received a reply from Copenhagen acknowledging its acceptance.

MR. JOHN HOLDING, chemist and dentist, Barnsbury, N., has been re-appointed vicar's churchwarden for St. Andrew's Church, Thornhill Square, N., for the seventh time.

MR. THOS. STEPHENSON, F.C.S., pharmaceutical chemist, late general manager of Phillips & Co. (Limited), Bombay, has returned to this country, and may be addressed c/o THE CHEMIST AND DRUGGIST.

MISS LUCY M. M. CUTHBERTSON has been appointed dispenser at the Victoria Hospital for Sick Children, Hull, and will take up her duties there on April 21. Miss Cuthbertson, who holds the Minor certificate of the Pharmaceutical Society, received her early training at the Women's Hospital, Birmingham, the institution with which the late Mr. Lawson Tait was so long connected.

MR. W. H. CHAPLIN (of Messrs. W. H. Chaplin & Co., Limited, 10 Villiers Street, W.C.) is making a strong personal appeal on behalf of the Wine and Spirit Trades Benevolent Society. Mr. Chaplin is, this year, Chairman of the annual banquet to be held on May 5, and he has issued a circular letter commending the objects of the Society and asking for subscriptions. All those interested in the Society who are desirous of contributing should communicate either with Mr. Chaplin, or with the Secretary, Mr. W. H. Cross, 27 Crutched Friars, E.O.

At the Counter.

OLD WOMAN (indignantly): "The last asafetiddy-pills ye gied me were fair stinking; I want fresh y'ns this time."

CHEMIST (soliculously): "Well, Mrs. McTurk, how are you this morning?" Mrs. McTurk (brokenly): "Oh, Mr. Calomel, its a' ower wi' me; the professor says I ha'e gotten pandemonium o' the heart!" Adroit cross-questioning elicits the fact that she means "pericarditis."

NOT MYTHICAL.—The story of the Irishman who "writes for your address" is not so mythical as many people imagine it. Messrs. Kay Brothers, of Stockport, received the following communication some time ago:—

Dear Sir,—Answer this Back with your right address sincerely hoping it finds you. The Drugest are sold out with your Linseed Compound.

The letter bears neither the address nor the signature of the writer.

LICHFIELD LANGUAGE.—A Lichfield contribution is thus set forth:—

Sir you sent me word that you would supply me with some birdlime and good for the same as I could get it else were that is 10d. pence a half pound and I have sent to you for to or three pennyworth at a time lateley and you have sent me some that was very good and on Tuesday I sent to you for half a pound and you have sent me some stuff that wont half ole a Bird. I would not Beg it I knew you had got some of this stuff but it is no good and I have sent it you back if you have any of the other send me half the quantity and I shall be satisfied for it is worse then puting your hand in my Pocket and taking the money out. it is ded robbery.

The last paragraph strikes us as slightly libellous.

THE following took place in one of the principal shops in a Midland city: Lady enters shop, and the manager (unqualified) goes to counter. Lady: "Have you —'s hamatogen?" Manager: "Yes, madam." Lady: Can you tell me what the preparation is, what it is made from, and what it is used for?" Manager: "Oh, it is a preparation of logwood"; and when the lady wanted more information he got quite confused, so the lady went out without anything.

Photographic Exhibition.

THE Third Photographic and Optical Trades Exhibition was opened on April 11 at the Portman Rooms, Baker Street, W. There are several interesting developments in photography shown, the feature of the Exhibition being roll-films, film-cameras, and daylight-loading devices for cut films. An alphabetical arrangement has been adopted in the following short notes of the chief novelties.

DAVID ALLAN is showing a large variety of photographic metal-work, such as lamps and washers. There are several sizes of bichromate lamps, in which a glass cell of solution of potassium bichromate forms the front of the lamp, a groove being provided for an additional canary filter. Calcium tubes, with lever-off ends, requiring no elastic bands, are cheaper than the usual tubes for storing platinum-paper, and quite air-tight.

The ANGLO-AMERICAN OPTICAL COMPANY'S exhibit is devoted to opticians' goods, and consists of samples of the various kinds of trial cases and frames, and spectacles and eyeglasses. The "Perfection" revolving trial-frame is one of the best of its kind for taking the whole of the measurements of the face required for spectacles. The graduations are made on celluloid, and hence are very distinct.

J. ASHFORD shows many kinds of camera-stands, the newest being a very light one, called the featherweight "Giraffe." It extends to 56 inches, and closes into a space of $14\frac{3}{4}$ by $2\frac{3}{4}$ by $1\frac{1}{2}$. The "Newford" exposing-apparatus is an arrangement for exposing cut-films in the camera. It resembles a dark-slide, but has film-envelopes, so that changing can be done in daylight.

BAYER & CO. (LIMITED) have a stall opposite the entrance, where they show photographic chemicals. The chief new things are edinol developer, which is put up in powder, liquid, and cartridge form, acetone-sulphite (a salt designed to take the place of acetone and sodium sulphite), and the "Bayer" flash-light powder. The last-named is packed in tin boxes, with a partition down the middle to keep the component parts of the powder separate till required for use, so as to avoid fire-risk. The products of combustion are said to be given off as a "faint-blue wisp."

R. & J. BECK (LIMITED) exhibit "Frena" cameras and work done with the instruments. The "F.O.P. Frena" is a new size: it carries forty films or twelve plates ($3\frac{1}{2}$ by $2\frac{3}{4}$), and sells at a guinea; and would be worth introducing to photographic chemists.

T. P. BETHELL, whose "Crown" and "Monarch" cameras are known on account of their small price, shows a new quarter-plate magazine camera for six plates, which sells at 5s. The body of the camera is made of wood, and the arrangement for changing the plates is of the simplest. The "Regal" enlarger is a simple but efficient apparatus for enlarging from quarter and half plate negatives.

THE BROOKS-WATSON DAYLIGHT CAMERA COMPANY (LIMITED) introduce a new system of daylight loading and unloading of flat films. The chief part of the apparatus—which, however, is not quite ready yet—is a kind of dark-slide, to be known as the "Rajar," by means of which the films in a packet can be alternately exposed. We shall refer to the system again when we have had an opportunity of examining the finished apparatus.

BURROUGHS WELLCOME & Co. make a show of tabloid products for photographic use. The developers and various baths in tabloid form are fairly well known to our readers. A demand has arisen for the potassium-ammonium-chromate tablets for sensitising carbon tissue owing to their exceptional convenience. A new showcard depicting a lady amateur using "Tabloid" chemicals was on view, and the ease of using that form of developer was being shown by practical demonstration.

The BUSCH CAMERA COMPANY are exhibiting the "Pockam" camera, a compact form of roll-film and plate camera to which a rising and sliding front is fixed. Other forms of cartridge-film apparatus shown are the "Cycam" and the "Pocket" cameras; these are all fitted with the Busch lenses made by the Rathenower Optische Industrie-Anstalt.

W. BUTCHER & SONS have, since we recently described the season's novelties, brought out the "Cameo" camera, a very small quarter-plate apparatus, which folds to go in the

pocket. A little adapter has been introduced for using two "Nippers" side by side to obtain stereoscopic pictures, and a two-guinea quarter-plate outfit, fitted with a time and instantaneous shutter on a rapid rectilinear lens, is capital value. The "Pilot" chemicals are convenient packages of various developers for users of small cameras.

CLEMENT & GILMER have hand-cameras from 30s. a dozen up to 10l. 10s. each. The latter, a panoramic camera, is fitted with a Zeiss swing lens. French lenses in great variety are also shown.

COLUMBIA OPTICAL AND CAMERA COMPANY exhibit "Pecto" cameras of the American folding type. A recent introduction is the "Columbia" film, a substitute for glass plates or celluloid films, but at the same price as plates. One portion of the exhibit is devoted to ophthalmological goods, where trial-cases and eyeglass-frames are much in evidence.

HARRY W. COX (LIMITED) shows *x*-ray apparatus, a portable field-service outfit being in working during the exhibition.

GEORGE CULVER (LIMITED) have an optical exhibit designed to show the process of spectacle-lens making, as well as the finished goods. A test-case at 11l., or with unmounted lenses at half that price, is a favourite with chemist-opticians. The speciality of this firm in pince-nez is called the "Revluc," which, whilst smart in appearance, fits well to the nose without unnecessary pressure.

L. GAUMONT & Co.'s stall is devoted to cinematographic apparatus and Planchon films. The proper way to develop the films, we were told, is to do the whole length together, passing the film through the developer from end to end until development is finished. The black backing-paper is coated with insoluble gelatin on the side which comes in contact with the sensitive film, the idea being to protect the film from injury due to impure paper.

O. P. GOERZ shows the Goerz anastigmats and the "Anschütz" camera. An improved device has been introduced for altering the width of the slits of the focal-plane shutters used in the "Anschütz" folding camera, which it is claimed can be manipulated with the greatest of ease, and cannot get out of order.

JOHN J. GRIFFIN & SONS (LIMITED) show novelties in papers and cameras. "Glycia" paper is a glossy printing-out paper, which apparently takes a variety of tones. We noticed also a bromide-toning outfit by means of which red, brown, green, or blue tones can be imparted to bromide prints.

G. HOUGHTON & SON have several interesting novelties. The principal one is the "Dalo" camera, where a new daylight-loading system for flat films is introduced. This is an ingenious arrangement by which flat films are wrapped



with black paper on flat spools, and can be released one by one after exposure. Another method of daylight changing for films or plates is shown in the "Mackenzie-Wishart" daylight slide. This involves the use of light-proof buckram envelopes, and the slides can be adapted to any camera. A complete new series of roll-film cartridges has just been brought out under the name of the "Ensign." These are celluloid films coated with Austin Edwards' emulsion, and bear a good profit to the dealer. "Fotabs" are compressed tablets of photographic chemicals wrapped in waxed paper, and packed in metal cases. The series comprises developers, a combined toner and fixer, and a fixing-bath.

A. C. JACKSON shows the "Ilex" cameras in several qualities and a new metal shutter—the "Ilex"—adapted for fitting either to the back or front of the lens.

JOHNSON & SONS exhibit large bowls of silver nitrate and gold chloride.

JOSEPH LEVI & Co. have several well-made cameras, the leading line being the "Klito." The "Packard" spotting-cakes are useful water-colour paints for spotting negatives or bromide prints. We saw also a specimen of a printing-frame, where the hinged back automatically opens when the back spring is released. This frame is shortly to be introduced.

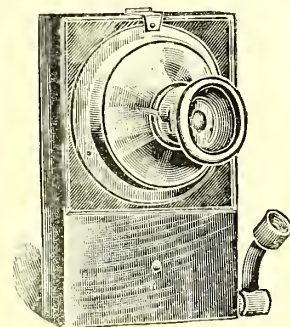
J. E. LOCKYER, whose photographic specialities are well known to our readers, has added some new developers. One, the universal metol-quinol developer, is packed in attractive red cartons, and sells at 1s., whilst the trade terms allow the dealer a good profit. A new style of packing "hypo" was shown. The package contains a dozen 4-oz. cartons of that indispensable chemical. The convenience of the package will be appreciated by amateurs. Mr. Lockyer is also showing his improved enlarging and copying apparatus, which is well made and good value.

D. A. LOWTHINE devotes his exhibit chiefly to mounts and albums, but here is also shown a daylight loading plate-camera.

MARION & Co. (LIMITED) have introduced a new hand-camera called the "Imperial." It is of the folding type, and only made in 5 by 4 size. An easy-working circular-print trimmer is a timely introduction now that circular mounts are so fashionable. Plates, papers, and mounts are shown in great variety.

LAMBERT MATTHEWS has lanterns and gas-generators in several designs, and a useful article in the shape of the "Sweetheart" adhesive cloth for mounting photographs. The "Sweetheart" is a kind of adhesive plaster, and a hot iron is used for mounting the picture.

THE QUINCEY PHOTOGRAPHIC DEVELOPMENT COMPANY show what they call a portable dark-box. It is an enclosed



developing-dish fitted with a well, and has red-glazed window for watching development. A dark-room is not required with the "Quincey" apparatus. (See illustration.)

AUGUSTE ROMANET, who has recently opened show-rooms in London, exhibits the "A. R. L." lenses and the "Bee" cameras. There is also a good line in telescopic tripods, and an ingenious folding opera-glass—"La Mignonne."

A. ROSENBERG & Co. show a portable oxygen-generator and the "Perfecto" steel

tripod—a telescopic stand, the sliding portions being triangular and the head adjustable.

THE ROTARY PHOTOGRAPHIC COMPANY (LIMITED) make a special line of bromide-paper, and in the interest of bromide photography publish the *Bromide Monthly*. The "Rotograph" and "Rotoken" are the two brands of paper sold.

OTTO SCHOLZIG exhibits prints obtained with the "Otto" P.O.P., "Siennatype" P.O.P., collodion-papers, and Dr. Jacoby's platinum-papers, which are a credit to the papers, and show the class of work they are suited for.

SEABROOK BROTHERS show thirty different styles of "Wizard" cameras, as good a value as any being No. 25, a 5 by 4 folding camera with three slides, selling at 3l. 17s. 6d. The orthoscope lens, working at f. 6, has only recently been introduced, and is credited with marvellous covering-power.

O. SICHEL & Co. have several special cameras, the chief being the "Premo" series. One of the latter for telephotography has a focal length of 26 inches in the 5 by 4 size. Studio cameras are also shown.

A. E. STALEY & Co. exhibit the Bausch & Lomb goods, including the "Volute," a new iris-diaphragm shutter. This shutter gives exposures from $\frac{1}{150}$ second to 3 seconds, whilst the size of the diaphragm can be varied between wide limits.

F. H. TAYLOR & SONS' stall is a pyramid of measures and bottles. The 1902 patent measure has the graduations in black, whilst the opposite side is sand-blasted so as to form a white background. Labelled bottles for developers are in various styles.

R. W. THOMAS & Co. (LIMITED) are making a feature of "twopenny tubes" of chemicals. The tubes of plate and paper developers, combined bath, bromide, metaspulphite, and acid hypo, have distinctive colours, and they are sold separately or in sets. The "Bee" plates, being pushed just now, are the cheapest plates on the market.

THE THORNTON-PICKARD MANUFACTURING COMPANY (LIMITED) have a good exhibit of cameras and shutters. The "Automan" series is new. These cameras are so called because on pressing a button they are at once put into position for taking a photograph. A triple-extension "Ruby" camera has been introduced for telephotographic work, a special lens-support being used.

TYLER & ENGLAND BROTHERS (LIMITED) have a good show of mounts, the "Métropole" embossed circles and the "Dudley" panels being two fresh lines. The photographs sent into the Teb competition are exhibited at this stall. A good guinea line is the "Empire" hand-camera: the back is self-locking and the shutter is adjustable for six speeds.

W. WATSON & SONS show an improved hanging bichrome lamp for electric light, and also a printing-frame for printing a complete spool of negatives without cutting up the separate exposures. An optical section of this exhibit is devoted to telescopes and microscopes.

W. D. WELFORD makes a special show of cloud and border negatives and compact printing-sets.

A. & M. ZIMMERMANN exhibit Schering's photographic chemicals. Adurol, a quinol derivative but more easily soluble, has advantages which should make it a popular developer. It is put up in powder, solution, and cartridges.

C. ZIMMERMANN & Co., agents for the "Agfa" developers and goods, show the various kinds. The latest introduction is the "Isolar" non-halation plates. These have a soluble backing between the film and its support, the backing disappearing during development. The "Agfa" booklets are now ready for supply to dealers for distribution.

The Exhibition closes at 10 P.M. on April 19.

Things Worth Knowing.

THE ASPIDESTRA is a mine of wealth to the student of botany, and, as it is a hardy plant and very common, can be studied almost all the year round. Its flowers are most curious.

THE ASH OF THE FERN growing on the hillsides contains much potash, and is used by Welsh housewives for washing linen and putting a shine on pewters and brasses.

COST OF PROTECTING INVENTIONS.—To have an invention protected all over the world it is necessary to take out sixty-four patents in as many different countries, the estimated cost of which is 500l.

IN STEWING RHUBARB, if a drachm of bicarbonate of soda, dissolved in a tablespoonful of water, be added to each pint of chopped-up stalks, the quantity of sugar necessary for sweetening will be considerably reduced, as the alkali neutralises the acidity.

TO MAKE STRONG GLUE.—An exceedingly strong glue, which will also resist the action of water, may be made by soaking ordinary glue in water until it is quite soft, and then dissolving it in linseed oil over a very slow fire until it is the thickness of jelly.

ARTICLES MADE OF INDIARUBBER, which have become hard and brittle, should be treated in the following way: Put the article to be treated in water to which has been added ammonia in the proportion of 2 parts of water to 1 part of ammonia, and leave it there till it becomes soft. The length of time will, of course, vary according to the condition of the article before treatment.

FOR BROKEN CHILBLAINS, Dr. Courtin, of Bordeaux, has found hydrogen-peroxide solution an excellent application. One part of the 10 vol. solution with 7 parts of warm water should be used to bathe the chilblains, keeping the feet in the bath for half an hour. A little borax should be added to neutralise the acidity of the solution.

Old Sheffield Druggists.

At a meeting of the Sheffield Pharmaceutical and Chemical Society at the Literary and Philosophical Society's Rooms on April 16, the President (Mr. John Austen) read a paper with the above title.

MR. AUSTEN divided his subject into three periods: the first dealt with pharmacy before 1800; the second, from 1800 to the foundation of the Pharmaceutical Society; and the third, from 1841 to the passing of the Pharmacy Act in 1868. Pharmacy and trade in drugs was in the seventeenth century mainly confined to physicians who had an apothecary attending them, and records furnish a few references. Among eighteenth-century physicians was Dr. James, who commenced practice in Sheffield in 1761—his famous antimonial powder still survives. Mr. Austen traced the evolution of the chemist and druggist from the assistants employed at the dispensaries set up by the physicians to counteract the monopoly of pharmacy which the apothecaries were obtaining. Some of the apothecaries, seeing their craft in danger, threw their lot in with the chemists and druggists, and then ensued the rivalry between the two

on the business of her late husband, who came of an old Sheffield family. Mrs. Handley was succeeded by Benjamin Rose in 1798, who had a branch-business, and was prosperous. Another celebrated eighteenth-century druggist was Richard Sutcliffe, who had a shop in Church Street (1795-1809), and was noted for his skill in healing, his clever apprentices, and his dirty shop. Sutcliffe moved to South Moor Street in 1809, and Thomas Cooper took over the Church Street shop. In 1797 five additional drug-businesses are mentioned—Bagshaw & Wreaks, H. & R. Bowman, Cæsar Jones, James Rawson, and J. & W. Sanderson.

SECOND PERIOD.

During the first ten years of the nineteenth century the following businesses were started in Sheffield: Benjamin Sykes, Waingate (1802); George Radley, Westbar (1803); W. Jervis, Westbar (1805); George Hawksworth, High Street (1805); and Joshua Gillatt, Market Place (1807).

Sykes died in 1804, and was succeeded by John Hinde. Radley removed his business to Westbar Green, and did a big paint trade. He was one of the first Sheffield druggists to use newspapers as advertising mediums. Green paint, then a novelty, was a special manufacture of Radley's. He died in 1825, and was succeeded by Chas. Elliott. Hawksworth served his apprenticeship in Wakefield, and was assistant to



JOHN MIDDLETON SALISBURY,
A Founder of the Pharmaceutical
Society.



WILLIAM VALENTINE RADLEY,
First Secretary (1841) of the local
branch of the Pharmaceutical
Society.



FRED. MACHON,
First President (1841) of the local
branch of the Pharmaceutical
Society.

classes which ended in the apothecaries being recognised as medical men and the chemists as pharmacists. The records of the eighteenth-century Sheffield druggists are scanty but interesting. John Kirby, in 1750, purchased a shop in the Hartshead, which afterwards became the office of the *Iris* newspaper. Kirby was probably succeeded in a short time by Dr. William Buchan, who is well known as the author of a popular work called "Domestic Medicine, or the Family Physician," of which 80,000 copies were sold during the author's lifetime. Buchan died in London in 1805, and was buried in Westminster Abbey. William Pearson began a prosperous business at 17 High Street in 1769, and died in 1794. He was succeeded by his executor, George Brown, who carried on the business until he failed in 1803. Brown seems to have come from a reckless family, and is said by Hunter, the historian, to have been "reduced to rags." Only three druggists are mentioned in the first Sheffield Directory (1774), the other two being Robert Wooffendall and Mrs. Ann Handley. Wooffendall opened his shop in 1770, but soon handed over his business to Ralph Hodgkinson, sen., who had been a peddling druggist, but built up a profitable business. He retired eventually to Eckington, and died in 1810. His son, of the same name, who succeeded him, became the chief druggist of the town, and Mr. Austen gave extracts from his recipe-book to show that he never adulterated his drugs. When Ralph Hodgkinson, jun., retired he was succeeded by Thomas Ramsay. Mrs. Handley carried

Robert Wreaks before he started in business for himself. He used to lend his six silver entrée-dishes and other silver plate to the cutlers' annual feast, from which it may be inferred that he was a man of means. He made a reputation for a "Buff mixture," containing rhubarb, magnesia, a little opium, and aromatics, which is still asked for in Sheffield as "Hawksworth's mixture." William Jervis, descended from the Dutch cutlers, was succeeded by his son George in 1811. Joshua Gillatt was probably apprenticed with Wreaks, and in his opening advertisement announced his intention of making up prescriptions with the "greatest care, accuracy, and neatness." Mr. Gillatt was closely identified with the Methodist movement, and is described as of a benevolent expression, with silvery-white hair and beard. He died suddenly in 1840, and his memorial tablet in Craven Street Chapel says "He was a friend to all, and death in him produced no terror—for he was also the friend of God."

The number of druggists in Sheffield continued to increase. In 1814 John Webster, who had been apprenticed to a relative—Henry Hodgkinson, of Stockport—started business in Fargate. He was an excellent Latin scholar, and turned out good apprentices. About the year 1815 large quantities of magnesia (then newly introduced) were sold for improving bread, the harvest of 1815 producing very poor corn; magnesia made the bread whiter and lighter. Mr. Webster retired in favour of a former apprentice—Benjamin Beek—

and devoted himself to horticulture, medicinal plants being a speciality of his. He died in 1870. In 1816 John Lofthouse took over the business in Snig Hill founded by John Rawson. John Lofthouse came from Tadcaster, and was one of four druggist brothers; he gave up his Sheffield shops in 1825 to his brother Thomas, and went to Hull, where with another brother he founded the business now known as Lofthouse & Salter. Six other druggists at this time were Josiah Blackwell, who afterwards carried on chemical-works, William Bower, who opened in the shop lately occupied by Mr. W. H. Dyson, William Harrison, T. Sewell, William Hoyland, and Thomas Ramsay (who succeeded Ralph Hodgkinson). Ramsay largely advertised summer drinks in 1820 and 1821. T. F. James followed Mr. Ramsay in 1823. John Wand, who began business at 67 Moorfields in 1820, was a medical botanist as well as a druggist; he was followed by John Moss, who almost made his fortune by the sale of a cholera-pill in 1832. Mr. R. T. Taylor, who took the business of Wm. Bower, of Westbar Green, in 1820, came from Doncaster. He gained considerable reputation with his aerated waters—Mr. Soyer, of the Reform Club, speaking of him as manufacturing "the perfection of soda-water." Mr. Taylor was a founder of the Pharmaceutical Society. Williamson's business at 10 High



OLLIVE SIMS (of Stockport).

Street successively passed into the hands of Richard Harrison (1820) and Mr. Margetts, when the business was moved.

The business owned by a member of the Association, Mr. Geo. Owen, has been in his family for upwards of eighty years. Geo. Owen, the grandfather of the present Mr. Owen, commenced business at 7 Broad Street Park, in 1822. He was born at Barlow, and was apprenticed to Hawksworth, in the High Street, and appears to have been fond of outdoor occupations and sports, music, and singing. In 1826 Owen took the shop in Westbar Green from Mr. R. T. Taylor (Dyson's old shop), and the *Iris* for July 18, 1827, records the destruction of the premises by fire—overheating linseed oil was the cause. Geo. Owen died in 1837, at the early age of 39, and his widow manifested remarkable skill and energy in continuing the business. Mrs. Owen continued to direct affairs till 1852, when her two sons took over the proprietorship.

In 1825 there were twenty-five chemists and druggists in business; among those not mentioned before being Robert Roper, who invented Roper's Royal Bath plasters and Roper's pills, which had an extensive sale at one time. On his death the business passed to his son, and then to Liversedge & Son, who confined themselves chiefly to the manufacture of Jem Cook's horse-powders and the gunpowder-trade. The business is now carried on as Robert Roper, Sons & Co. Robert Hudson came from Rotherham to Sheffield in 1824, and obtained a reputation as a "cow-doctor." He died in 1861, and his nephew succeeded to the business, which Mr. Graham now carries

on. After speaking of Charles Elliott (Radley's successor) and A. Rowbotham, Mr. Austen recalled John Wilkinson, who was a surgeon and chemist, and whose business on his death was continued by his widow. Mrs. Wilkinson was the inventor of a white magnesia mixture known as "Wilkinson's mixture," the profits of which paid the rent. Mrs. Wilkinson's two sons succeeded her, and the business was removed to 30 South Street Moor. Between the years 1830 and 1833 there commenced business in Sheffield John Middleton Salisbury (a founder of the Society), Fred Machon (who, Gillatt said, was the best apprentice he ever had), and Henry Crawshaw (whose hobby was gardening). One of Mr. Crawshaw's apprentices, George Bailey Cocking, survives, and is 79 years old. Mr. Henry Harrison, who commenced business in 1835, was a founder of the Pharmaceutical Society, and removed in 1862 to the shop now in the occupation of Mr. Eardley. Mr. John Hill started business in 1838, and for many years had the reputation of being the first chemist in the town. He was noted for his care in dispensing. Mr. J. H. Appleton bought the shop of Henry Chambers in 1839, and claimed descent from the Appletons of Appleton-on-Wisk, and on his mother's side from the Meynells, who came over with the Conqueror. Mr. Appleton was proud of his ancestry, and used to tell a story of the invasion of England by the Scottish forces under the Young Pretender, when the pewter plate of an ancestor was melted into bullets. He died in 1880, and was followed by his son. The business which is now carried on by Mr. Newsholme, and which he acquired in 1877 from Mr. William Valentine Radley, was the business which Mr. Joshua Gillatt carried on till his death in 1840. Mr. Radley was a founder of the Society and a councillor in 1872 and 1880. He cultivated a prescribing business.

THE THIRD PERIOD.

Mr. Austen dealt with the formation of the Pharmaceutical Society, and gave the names of the ten members and three associates who joined in 1841. These formed a local branch and circulated the *Pharmaceutical Journal* and the *Lancet* among themselves. Mr. Austen next gave some interesting accounts of what the drug business was like in those days—it was eminently practical—and referred to several other druggists of those days, among them Henry Horncastle, John Smith, Thomas Austen, Robert Fisher, T. W. Maxfield, Savory & Merryweather (now Mr. Squire's shop), Mr. J. B. Wheen (father of the present Mr. Wheen), and Mrs. Harriett Lester (now Mr. Hewitt's).

The chemists' shops started between 1841 and 1868 included Abel Bywater, an authority on the Sheffield dialect, who received in 1859 a visit from Prince Lucien Bonaparte, who got him to translate the Song of Solomon into the Sheffield dialect. He died in 1873. John Gartside Elliott, or "Little Elliott" as he was called, began business in Gibraltar Street in 1844. He was the youngest son of Ebenezer Elliott, the poet and corn-law rhymer, who in a letter thus described his druggist son: "John the weakling, kind-hearted, intelligent, 5 feet 4 inches in height, and almost blind—druggisting in Sheffield in a sort of chimney called a shop. He is engaged almost without a moment's pause from 7 in the morning until 10 at night in dealing out halfpennyworths of drugs. Yet I think he is as likely to thrive as most of his neighbours." Mr. Elliott was, to say the least, eccentric, which gave him a wonderful reputation amongst the poorer classes. He died in 1888, having lived in retirement for two years. Joseph Leslie, who took William Shaw's business in Trippet Lane in 1843, came from Aberdeen. On leaving home his mother gave him this piece of advice: "Remember the poor, and always give a big pennyworth." He gave a quantity of medicine away, one mixture—"Leslie's Diet Drink"—being a great favourite. People came for the drink with jugs and bottles, and were invited to get as much as they liked for nothing. John Edward Herbert Jennings, another well-known Sheffield druggist, had a reputation for making excellent French polish. Joseph Cecil, who opened a business at 62 Westbar, was grandson of a saddler, who inherited the Rotherams' estate, and became Lord of the Manor of Dronfield. Joseph Cecil was well known to Sheffielders on account of his command of strong and impressive language. Samuel Elliott, otherwise "Rops" was almost as eccentric as "Little Elliott," but not so successful. The business carried on by

the late Mr. J. T. Miller was commenced in partnership with his brother in 1847. Mr. J. T. Miller was first engaged in the medical profession, but an attack of brain fever altered the course of his life, and he started in business in Gibraltar Street. Mr. Miller was passionately fond of analysis, and did a lot of work on the Pharmacopœia tests for drugs. Many of his researches were communicated to the Pharmaceutical Society's evening meetings. Miller's test for methylated spirit, in which bichromate of potash is used, is well known. Mr. Miller on one occasion (1876) expressed himself of the opinion that chemists should not foster the ignorant prejudices of customers by selling such impure articles as milk of sulphur.

Mr. George Bailey Cocking, who commenced business in Barker's Pool in 1846 and retired from business some twenty-five years ago, is the oldest chemist and druggist in Sheffield. He was apprenticed with Mr. Hy. Crawshaw, of Moorfields, in 1839, and has still very vivid recollections of those early days. Perhaps the most unpleasant work he had to do in his apprentice days was the powdering of Spanish fly, which was done in the cellar, and in spite of the thick handkerchief wound around his mouth and nostrils, he usually came out with blistered lips. In those days a great deal of the infants' mixture called "Dias Cordial" was made and sold by Sheffield chemists. This was composed of tincture of opium, aromatics, and black treacle, and Mr. Crawshaw had the reputation of making the best in the town, and Mr. Cocking says that during his apprenticeship he made hogs-heads of it.

Mr. E. P. Hornby, the last President of the United Society of Chemists and Druggists, was a Sheffielder by adoption. In 1854 he purchased the old-established shop of Mr. Hawksworth in High Street. Mr. Hornby was born at Tuxford, where his father was the country doctor. He was 27 when he came to Sheffield, and remained for some eighteen years. Besides carrying on a very lucrative retail business he launched into the manufacture of acids and chemicals, and established the Sheffield Chemical-works, which were carried on for many years under the name of Hornby, Fairburn & Co., of Attercliffe, Sheffield. In 1873 he removed to Stockport, and purchased the old business at Lower Hillgate, founded by Olive Sims in 1786, which was undoubtedly one of the finest in the country. It was here that Luke Howard, the founder of the far-famed Stratford House, received his early pharmaceutical training. Howard was Olive Sims's first apprentice. The present senior of the Stratford firm well remembers Mr. Luke Howard talking about his experiences during that period of his education, and in a letter I received from him some days ago he adds: "It seems to have been a specimen of that excellent system of apprenticeship now unfortunately extinct." Olive Sims was an elder in the Society of Friends, and was much valued by all who knew him. He had superior intellectual attainments, and was a scientist and a botanist. He died in 1836, aged 77 years. Mr. Samuel Kay, of Kay Brothers (Limited), managed the shop in Wm. Shaw's time, and after the death of Mr. Hornby in 1879, Messrs. Kay Brothers purchased the business and merged it into their own, but subsequently they turned it over to an old apprentice (Mr. Arnfield).

Mr. Austen concluded his paper with a short outline of the careers of Mr. J. T. Dobb, who is still living, and the late Mr. Joseph Watts, and with a sketch of the final struggle between the two Societies—the Pharmaceutical Society and the United Society of Chemists and Druggists.

The value of the lecture was enhanced by a series of druggists' portraits, the illustrations given in this article being typical of an interesting collection.

A New Formulary.

THE Society of Pharmacy of Antwerp has drawn up a Formulary with a view to promoting uniformity in medicines for which there is no official standard. The following are selected from the Formulary recently published in the *Journal de Pharmacie*:—

SIMPLE OINTMENT.

Anhydrous lanoline	} Equal parts.
White vaseline	

IODISED COLLODION.

Iodoform in powder...	...	...	1 oz.
Alcohol (90-per-cent.)	...	...	$\frac{1}{2}$ oz.
Ether ...	...	...	$\frac{1}{2}$ oz.
Collodion ...	...	...	8 oz.

Mix the iodoform with the mixture of alcohol and ether, and add the collodion. Should be prepared extemporaneously.

HIERA PICRA ELECTUARY.

Powdered saffron ...	...	...	1 oz.
Powdered cinnamon ...	...	...	1 oz.
Oil of mace ...	...	...	$\frac{1}{2}$ oz.
Powdered aloes ...	...	...	18 oz.
Honey...	...	...	80 oz.

Mix.

COD-LIVER OIL EMULSION.

Irish moss ...	...	...	1 oz.
Distilled water ...	...	...	50 oz.

Boil gently for half an hour, replacing the water that evaporates. Strain without pressure, so as to obtain 45 oz. of liquid. Separately mix—

Powdered tragacanth ...	...	...	3 dr.
Cod-liver oil ...	...	...	50 oz.
Oil of cinnamon ...	...	...	$\frac{1}{2}$ oz.
Essential oil of almonds	$\frac{1}{2}$ oz.

Add to the decoction of Irish moss with—

Glycerin	5 oz.
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Shake thoroughly to form an emulsion.

CAMPFORATED CHAMOMILE OIL.

Infused oil of chamomile	9 oz.
Camphor ...	...	...	1 oz.

Dissolve and filter.

[The infused oil of chamomile is prepared by digesting 1 oz. of chamomile-flowers with 10 oz. of olive oil on a water-bath for two hours, straining, pressing, and filtering.]

SOLUTION OF ALUMINIUM ACETATE

(Burrow's Solution).

1. Crystallised lead acetate ...	...	...	10 oz.
Distilled water ...	...	...	30 oz.
2. Aluminium sulphate ...	...	...	6 oz.
(or potash alum $6\frac{1}{2}$ oz.)			
Sodium sulphate ...	...	...	1 oz.
Distilled water ...	...	...	50 oz.

Make each solution with heat, and when cold pour the lead solution into the aluminium solution and shake. Let the solution deposit during one or two days, and filter.

LASSAR'S OINTMENT.

(For Chilblains.)

Carbolic acid...	...	...	$\frac{1}{2}$ oz.
Acetate of lead ointment ...	...	...	10 oz.
Lanoline ...	...	...	10 oz.
Olive oil ...	...	...	$6\frac{1}{2}$ oz.

BELLADONNA MERCURIAL OINTMENT.

Mercurial ointment ...	...	...	17 oz.
Extract of belladonna ...	...	...	2 oz.
Water ...	...	...	1 oz.

Dissolve the extract in the water, and mix with the mercurial ointment.

SYRUP OF HEROINE.

Heroine hydrochloride ...	...	...	0.5 part
Distilled water ...	...	...	9.5 parts
Simple syrup...	...	...	990 parts

SYRUP OF CALCIUM LACTOPHOSPHATE.

Pure calcium carbonate ...	...	...	9 parts
Lactic acid (75-per-cent.) ...	...	...	22 parts
Phosphoric acid (10-per-cent.), sp. gr. 1.057 ...	...	...	88 parts
Water ...	...	...	a sufficiency

Dissolve the calcium carbonate in the lactic acid, diluted with 108 parts of water, by heat; allow to cool, and add the phosphoric acid, shake, and add water to make 370 parts. Dissolve in the solution in the cold—

Sugar ...	...	...	623 parts
and add—			
Oil of citron ...	...	...	7 parts

Fictional Pharmacy.

An Eighteenth-century Skit.

SOME time ago Mr. E. S. Vertue, chemist, Ipswich, sent us a volume of the *Aberdeen Magazine* for 1797, which contains, amongst many other interesting things, a burlesque on the collegiate examination of the day. The *jeu d'esprit* is entitled "Modern Learning Exemplified," and is attributed to Dr. Porson, a well-known Cambridge professor. A set of questions are arranged in the usual style, a salt-box being the subject under discussion. The metaphysics, logic, natural philosophy, and anatomy of the salt-box having been separately gone into, the student is taken on to

SURGERY AND THE PRACTICE OF PHYSIC.

Professor: Mention a few of the disorders to which a salt-box is liable.

Student: A cracked and leaky fundamental; gaping of the joints in the lateral; luxation of the hinges; and an accension and concretion of filth and foulness external and internal.

Professor: Very well. How would you treat these disorders? Begin with the first?

Student: I would caulk the leaky fundamental with pledgets of tow, which I would secure in the fissure by a strip of linen or paper pasted over. For the starting lateral points I would administer powerful astringents, such as the gluten cornuosa, and would bind the parts together by triple bandages, until the joints should knit.

Professor: Would you not assist with chalybeates?

Student: I would attack the disease with prepared iron, in doses proportioned to the strength of the parts.

Professor: How would you manage the luxation of the hinge?

Student: I would first examine whether it was occasioned by the starting of the points which annex the processes to the superlateral or its antagonist; or by the loss of the fulcrum, or by an absolute fracture of the futures. In the first case I would secure the process by a screw; in the second, I would bring the futures together, and introduce the fulcrum; and, in the last, I would entirely remove the fractured hinge, and supply its place, *pro tempore*, with one of leather.

Professor: Very well, sir; very well. Now for your treatment in case of accumulated foulnesses, external and internal. But first tell me how this foulness is contracted?

Student: Externally, by the greasy hands of the cook; and, internally, by the solutions and adhesion of the saline particles.

Professor: Very true; and now for the cure.

Student: I would first evacuate the abominable vessel, through the *prima vie*. I would then exhibit detergents and diluents, such as the saponaceous preparation, with plenty of aqua fontana.

Professor: Would not aqua caelestis answer better?

Student: Yes; plenty of aqua caelestis with the marine-sand. I would also apply the friction-brush with a brisk and strong hand until the excrucientitious concrete should be totally dissolved and removed.

Professor: Very proper. What next?

Student: I would use the cold bath by means of a common pump. I would then apply lintel-absorbents; and, finally, exsiccate the body by exposition, either in the sun or before the culinary or kitchen fire.

Professor: In what situation would you leave the superlateral valve during the exsiccating operation?

Student: I would leave it open to the extent, in order that the rarefied humidities might escape from the abominable cavities or sinusses.

The student having shown an apt and intimate knowledge of this section he is next taken in

CHEMISTRY.

Professor: You have mentioned the saponaceous preparation. How is that procured?

Student: By the action of a vegetable alkaline salt upon a pinguidinous or unctuous substance.

Professor: What is salt?

Student: It is a substance sui generis, pungent to the taste, of an antiseptic quality, and is produced by crystallization, or the evaporation of the fluid in which it is suspended.

Professor: How many kinds of salt occur in a salt-box?

Student: Two; coarse and fine.

Professor: You have said that the saponaceous preparation is procured by the action of an alkaline salt upon pinguidinous or unctuous substance. Describe the process.

Student: If a great quantity of strong lye be procured by passing water through the wood-ashes, and if a very large body of a pinguidinous habit should be immersed in this lye and

exposed to a considerable heat, the action of the lye, or rather of the salts with which it abounds, upon the pinguidinous body would cause the mixture to coadulate into soap.

Notice was given at this instant that dinner was on the table. The examination was concluded, and the parties separated; the examiners rejoicing in the anticipation of a feast, and the examined happy in finding the fiery trial over.

Modern Fables.

Mr. GEORGE ADE, of New York, is the author of a collection of humorous "Fables" which have recently been published. They are fables in slang, descriptive of present-day life in the United States, and are almost as clever and as entertaining as the dialect dialogues of his compatriot "Mr. Dooley." The following, which depicts the daily trials of the American pharmacist, is illustrative of the style:—

THE FABLE OF THE BUREAU OF PUBLIC COMFORT AND THE MAN IN CHARGE.

The Druggist stood in his Place of Business surrounded by Capsules, Hot Water Bags, Perfumes, and Fluid Extracts. A Man came in and said he wanted to look at the Directory. Then he asked if "Murphy" was spelled with an "f." He looked at the Hair Brushes, whistled a few bars of the "Spring Song" and went out.

A Small Boy entered and wanted to trade two empty hottles for a Piece of Licorice Root. The Deal fell through, because the Bottles had a Name blown in the Glass.

A woman came in and said she was waiting for a Friend. She had the Druggist bring her a Glass of Plain Water. She said she could not drink Soda Water because the Gas got up her Nose.

Another Woman came in for a Stamp. She did not have any Change with her, but was going to come in and hand him the Two Cents. some time; that is, if he was Small enough to remember it.

The next who came in was a Man with hardly any Chin. He wanted a Free Sample of Liver Pills and an Almanac telling the Date of the Battle of New Orleans, when the Sun rises and sets, and why the Chicken crossed the Road.

After him there came a Man who was in a Hurry, and wanted to use the 'Phone. He was vexed when he learned that Skinner & Skinner did not have any Number. He asked the Druggist why it was. The Druggist said he was sorry, and would see to it before the Man came in again.

Soon after two little Girls came on a Run and helped themselves to Picture Cards. They left the Door open, and a Boy in Overalls stepped in to ask if he could hang a Lithograph in the Window. The Druggist went back into the Laboratory and got a large stone Pestle. He was just ready to heat the Life out of the Cash Register when an Elderly Gentleman came in with a Prescription.

The Druggist Stayed the Blow and chirked up quite a bit. "This is where I catch even on the Day," he said.

It was no Morage. He had to and he did.

MORAL: Don't Blame the Druggist.

Another equally amusing sketch, "The Fable of Woman's True Friend and the Hopeful Antique," has a kind of pharmaceutical application. It is the tale of a Beauty Doctor who got her living "by selling Freckle Food and a Preparation for getting rid of Moles, called Moline. Her Hot Speciality was to Calcimine the Has-beens and feed them a little Ginger and send them into the Arena looking like Vassar Girls." All went well until the "Hopeful Antique" arrived. Her appearance was so hopeless that the hitherto undaunted Beauty Doctor succumbed, and her reputation was only saved by the tact of a resourceful Private Secretary.

DR. G. B. FERGUSON contributes a paper to the *British Medical Journal* giving the excellent results which have followed from the subcutaneous injection of quinine for chronic malarial fever in preference to administering the drug by the mouth. The salt used is the acid hydrobromate of quinine, which is soluble in 6 parts of water, and 3 gr. dissolved in 20 minims of water is injected at a time. Six injections on alternate days are usually required in a serious case, the sites for the operation being the skin of the upper arm, the thighs, skin of the abdomen, or at the top of the chest, or between the scapulae.

C. & D. Postcard Competitions.

Foreign and Colonial Section.

IN the lands beyond the seas our DIARY competitions still retain their favour. With each succeeding year we discover unsuspected friends hidden in remote parts of the earth, but where nevertheless THE CHEMIST AND DRUGGIST pursues its imperialising influence and cheers the brother pharmacist who has wandered far from the homeland. And as men do not wander to Peru, Argentina, Japan, New Zealand, Tasmania, South Africa, Russia, India, or over the Continent, merely for fun, but to obtain wisdom and wealth, so we find that the advertisement pages of our hardy annals are not the most neglected part of that periodical. The competition-results, which increase in volume year by year, prove that the efforts of our advertisers are not only closely scanned, but that they are shrewdly criticised. This year, singularly enough, our foreign and colonial friends have come practically to the same conclusions regarding the questions put to them as our home subscribers. The story of Pears' soap, by a large majority, is voted the most interesting in the DIARY, while the pages and price-lists of Messrs. Burroughs Wellcome & Co. are said to be the most helpful. The best illustrated design by a considerable majority is voted to be that of Messrs. Stevenson & Howell on page 8, although many favoured the pictures in Messrs. Pears' collection, and not a few were enamoured of the Stella Polare device on page 231. Messrs. Cadbury, C. P. Goetz, G. B. Kent & Sons (Limited), Hearon, Squire & Francis (Limited), and many others, had admirers in this section. As at home, so abroad do the widely-advertised Beecham's pills seem to be the best-selling speciality, but Pears' soap, Daisy powders, B. W. & Co.'s preparations, Eno's fruit-salt, and various others have a fair following. The fifth, and perhaps the most interesting, question had, however, a different answer. Scott's emulsion, according to the greatest number of our foreign friends, is the article not advertised in the DIARY that ought to be. Bovril, the home favourite, comes next. The following ought also to be advertised:—

Seigel's syrup	Angier's emulsion
Stearns' headache-powders	Erasmic soap
Steedman's powders	Elliman's embrocation
Williams' pink pills	Ilford photographic
Kodaks	Alcock's porous plasters
Artificial-limb makers	Benbow's dog-medicines
Hicks' thermometers	Cuticura preparations
Swan fountain pen	Guttapercha
Horlick's malted milk	Lancaster hand-cameras
Koko	P.A.T.A.
St. Jacobs oil	Carter's pills

One gentleman in Upper India would like to see advertised "some preparation for the cure of hydrocele"; another in Burma would like to see the familiar list of "Books to buy published by the C. & D."; yet another, in Rosario this time, wants a "good hair-preparation for chemists' own use," while a flatterer in New South Wales tersely says "Nil." The most coveted proprietary is Beecham's pills. Only one of all the competitors,

Mr. A. E. HUSTLER, UNLEY, SOUTH AUSTRALIA, managed to give the six correct answers, and to him we have therefore sent one and a half guineas.

Six others guessed five correctly, and we have given them 5s. each. They are the following:—

Mr. G. S. Houghton, c/o Mr. N. O. Ruffel, Kimberley, Griqualand West.

Mr. J. S. Dodds, Akaroa, Canterbury, N.Z.

Mr. C. R. Kiver, Christchurch, N.Z.

Mr. J. D. Johnston, The Square Pharmacy, Launceston, Tasmania

Mr. T. H. Kirkby, 177 Lambton Quay, Wellington, N.Z.

Mr. G. Barron, Waihi, Auckland, N.Z.

SHOP-HINTS.

We have appended a few of the more useful shop-hints. The first is, perhaps, the best, but it is too obvious to all good pharmacists:—

The most valuable shop-hint I can give to chemists is

subscribe to the C. & D., and read it.—JOHN KENDERDINE (Sale Street, Auckland, N.Z.).

It is a good plan to go round one's shelves periodically and pick out dead lines, putting them in suitable show-places to keep them both before the buyer and seller, thereby often working off stock that might lie by for years.—H. E. CREASE (Karangabake, N.Z.).

QUICK DISPENSING!—With bismuth subnit. cum pulv. acaciae mixtures, half fill bottle with menstruum, dry mouth and neck of bottle. Place bismuth and acacia on piece of paper and shoot direct into bottle. They will be as efficiently mixed with a slight shake as if rubbed down in a mortar.—AUGUSTUS STREDWICK (Kyneton, Victoria, Australia).

Put up in an elegant, attractive, and tasty style, as many of your own specialities and preparations as you can, as indicated in "Pharmaceutical Formulas," thereby ensuring an increase in your business returns.—CHARLES R. J. GLOVER (165 Gilles Street, Adelaide, South Australia).

"We give you what you ask for."—ROBERT W. BORTHWICK (89 Yokohama, Japan).

Obtain a licence to sell stamps and put them in an attractive envelope; it brings custom. Have a post-box handy.—C. R. KIVER (Christchurch, New Zealand).

[Mr. Kiver attaches a neat envelope to demonstrate what he means. It is about the size of a large powder-envelope, and bears his name and address, "Prescriptions for any doctor carefully dispensed," a picture in colours of a post-box, and the times of clearance.]

Don't change your assistants unless you wish to be a slave yourself.—G. E. GIBBARD, 287 King Street West, Toronto, Ont.

In this climate suppositories, &c., should contain a fifth of wax in basis, and be dispensed with lycopodium in the tin or bottle.—G. S. HOUGHTON, Kimberley, Griqualand West.

VERSES.

We have room for only three poets:—

Should chemists sigh at adverse fate,
Or burdened be with hours of toil,
What nectar will invigorate?
A luscious draught of castor oil!

—JAMES D. JOHNSTON, The Square Pharmacy, Launceston, Tasmania.

I like to read of Evans and Savars,
And I hardly think you'll say I am to blame,
Since their "sundries" fill my cases and their "chemicals" my jars,

And I conjure with their trade-mark and their name.
So I'm glad to see them figure large on page five-ninety-three

Of the up-to-date new DIARY of the good old C. & D.!

—H. J. MACMILLAN, The English Pharmacy, Rosario, Argentina.

Here are sachets "Marshall" ed in bright array,
And "Oil of the Night" that is made by "Day,"
And Tabloids "Wellcome" d in every land,
And trade-mark "Bull's Head" not made by Brand,
And Parrish's not manufactured by Squire:
Everything you may or may not require.

—J. A. MIERS, The Pharmacy, Mussoorie, India, N.W.P.

AWARDS.

Mr. Kiver's "hint" appears to us to be the most useful and Mr. Miers's verse is the most comprehensive. We have divided the guinea between these gentlemen.

Home Section.

MORE SHOP-HINTS.

FIRE-PREVENTION.—Many fires have originated during the manufacture of furniture-cream. It can be made with perfect safety by dissolving the wax and soap together in aq. by heat, and adding as hot as possible to the cold turps, and agitating until quite cool.—J. H. PAYNE (Thrapston).

BE POLITE AND OBLIGING, civil without servility or haughtiness, never promising what is impossible, but fulfilling promises accurately and punctually, candid to all, and endeavouring by your whole conduct and ability to show yourself something more than a shopman—a chemist and a gentleman.—(ACETUM).

When we have "the year's progress" of a firm, and an "index price-list" of the products of that firm, with many hints for using those products, all given in rather less than thirty pages, such an advertisement shows a mind which "Burroughs" to the very foundation of the principles of advertising, and is, in every sense, truly "Wellcome."—A. MARSLAND (Ashton-under-Lyne).

SHOP HINTS.—Buy fair, sell fair, and take care of the profits. A place for everything and everything in its place. Never be idle, there is always something wants doing; if nothing turns up, turn something up. Business men attend only to business in business hours. Be civil and obliging to all; it costs nothing and is worth much. Let the business of others alone (drug-stores included), and attend to your own.—NORMAN W. HUNT (Chesterfield).

If the retail chemist will follow the example of the most successful firms who advertise in the *DIARY*, and who depend upon genuine merit and originality alone, and, while attracting the attention of the public and trade by all legitimate means, will abjure all imitations, substitutions, and everything underhand, and will do his duty by perfecting himself in the professional side of his calling, I'll wager he will have no time or inclination to think about "store competition," but will, like Messrs. Burroughs Wellcome & Co., obtain a well-deserved success.—P. T. TUGWELL (Brighton).

The prize-winners in this competition will be announced in an early issue.

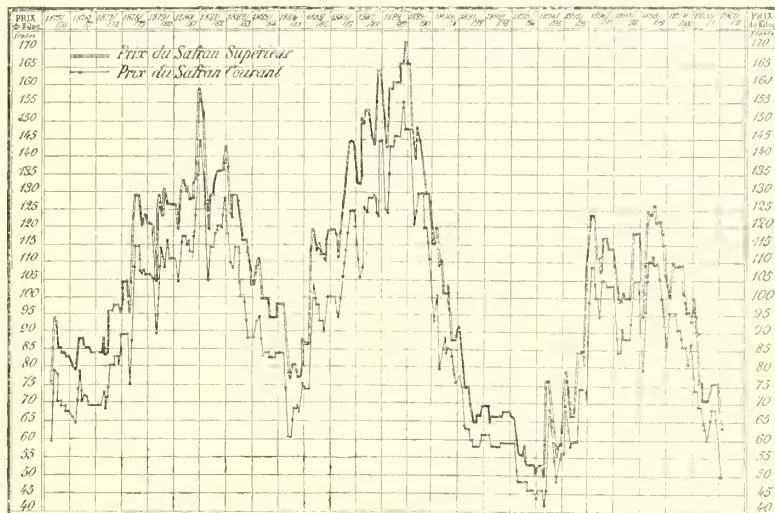
Who was the Doctor?

ON page 1021 of our last volume we printed a paragraph from the *Times* of December 26, 1801, regarding an eminent physician of that time who got a hint from a lady patient to stop his visits, the hint being the dropping of a guinea from the five-guinea fee. We offered half-a-guinea to anyone who would tell us who the eminent physician was. The half-guinea goes to Mr. T. J. Wilkes, chemist and druggist, Swanage, who correctly says it was Dr. John Abernethy, the father of many famous medical stories. John Abernethy was born in London in 1760, and died at Enfield in 1831. In 1787 he was appointed assistant surgeon at St. Bartholomew's Hospital, and, shortly afterwards, lecturer on surgery and anatomy. On the decease of Sir Charles Blick, his former instructor, Abernethy was elected master surgeon, when St. Bartholomew's Hospital began to increase in reputation, and soon acquired a degree of celebrity far beyond anything it had hitherto attained. In 1814 he was appointed Professor of Anatomy and Surgery to the College of Surgeons. He was an F.R.S., and was remarkable for a rough and irritable manner when speaking to his patients. Withal he was a good man. We received from another subscriber the name of Doctor Jehh as the author of the above anecdote, but cannot find any connection between that doctor and the anecdote in any of the reference works we have consulted.

THE great Abernethy knew how to preserve his dignity, says Mr. Andrew Lang. He put up for a professorship in Edinburgh, and had to canvass a bailie who was a grocer, who had *une attitude digne*. "You have come young sir, in this creesis of your career, to ask for my vote for the Chair of Toxicocology?" "No, sir," said A. "I have come to ask for a pennyworth of your figs. Put them up, and look smart about it."

French Saffron.

THIS diagram shows the variation in values of Gatinais (French) saffron from 1875 to the present time. It will be seen that the highest point reached was in 1883-89, when the price in France was over 170*fr.* per kilo., equivalent to 71*s.* 6*d.* per lb. The crop that year was barely 1,000 kilos., but the Spanish crop was a good average one. In 1894 saffron was at its lowest point, French being worth about 15*s.* 6*d.* per lb., in which year new Spanish was selling in London at from 19*s.* upwards, about the lowest point recorded. The firm who issue this diagram (Messrs. L.



Thiercelin & Charrier) publish a useful circular in regard to the adulteration of saffron and its detection, from which we quote the following:—

1. Genuine saffron mixed with vegetable filaments tinted in red. This adulteration is very easy to detect. Moisten the ball of your thumb, place a pure saffron stigma upon it, and press the stigma firmly on a sheet of white paper. Genuine saffron will tint the paper yellow, while foreign vegetable filaments will colour it red or not at all, according to the manner in which they are dyed. Another test: Put about $\frac{1}{2}$ gramme of saffron into nitric acid diluted with 50 per cent. of water. Pure saffron will not change colour while in the liquid for five minutes, but any foreign matter that may have been added to the saffron will become bleached.
 2. Genuine saffron adulterated with molasses, emery powder, or sulphate of baryta. Put a little of the suspected saffron into a glass of water. If, after having remained in the water for five minutes, the latter remains clear and has assumed a beautiful golden yellow tint, the saffron is pure; but should the latter become dirty yellow and cloudy, or a sediment be formed, it is safe to assume that the saffron is adulterated.
 3. Saffron adulterated with honey or glucose has a sweetish taste and remains glued to the fingers when pressed.
 4. Saffron adulterated with glycerin when pressed between two sheets of tissue-paper, such as is used in copying-books, leaves a greasy patch on the paper.
 5. Powdered saffron adulterated with red-wood powder put into liquid ammonia assumes a claret colour; pure saffron gives a beautiful golden-yellow tint.
 6. Powdered saffron adulterated with curcuma dyes petroleum-spirit yellow; pure saffron does not colour it at all.
- Ash.*—Pure saffron, according to the locality where it is grown, yields from $4\frac{1}{2}$ per cent. to 7 per cent. of ash; saffron adulterated with molasses may contain only $1\frac{1}{2}$ per cent.; and saffron treated with salts of potash and soda may yield as much as 25 per cent. of ash.

APT JUXTAPOSITION.—The following items appeared together in a recent issue of a Belfast newspaper:—

A young Irishman was killed by a fall down a hoist in Glasgow yesterday. He fell seven storeys.

COAGULINE.—Transparent cement for broken articles.

The cutting was sent by a Belfast chemist to Messrs. Kay Brothers (Limited), of Stockport, who in turn transmitted it to us.

Consular Counsel.

CHINA.

On several occasions we have called the attention of exporters to China and the East to the necessity of making a more close study of the requirements and peculiar artistic taste of the masses and their desire for very cheap goods. We now learn from a report by the American Consul at Nuchwang that the Japanese are imitating a vast number of foreign goods and putting a cheaper quality on the market, they being especially shrewd in imitation of brands. The Consul writes, of course, from the American point of view, but what he says about advertising is interesting. For instance, as regards condensed milk, the Chinese have the idea that milk revives the youthful powers, and that it has special virtue as winter food for old people. Pictures and characters illustrating this idea, as well as the value of it for baby-food, would, he thinks, increase the sale. One of the causes of success by Germany is the attention given to the desires and wants of the Chinese in regard to small lines of goods, and the ornamentation of goods and packages. The number of Germans in China who are establishing themselves in China is increasing very fast. From an extended list of imported articles which are now being used by the Chinese we take the following as being of interest to the drug-trade:—

Description	Where made	Condition of Market
Acid, sulphuric ...	Japan	Sales increasing
" nitric and hydrochloric	"	"
Borax	England	"
Brushes, tooth, best quality	"	"
Brushes, tooth, common	Japan	Sales great
Cameras	England	Sales limited
Chemicals, various ...	Germany and England	Sales fair
Dry plates, photographic	England	"
Drugs, various	"	Sales limited
Dyes, aniline	Germany	Very great
Ginseng	America	Sales increasing
"	Japan	Sales limited
"	Korea	Sales increasing
Milk, condensed	America	"
Morphine	England	"
Patent medicines ...	England and America	Sales fair
Perfumery, various ...	England, Germany, and America	Sales increasing
Perfumery-bottles with rubber ball	Germany and France	Sales limited
Perfume, white rose (in small bottles)	Japan and France	Sales increasing
Quinine sulphate ...	England and America	"
Rose-soap, various sizes	France, Germany, and Japan	"
Soaps, toilet	France and Germany	"
" cuticura	America	Sales limited
" bars, yellow	England, Germany, and America	Sales increasing
" honey (square pieces) in box of 100 pieces	England	"
" Pears' (square pieces)	"	"
" toilet François	France	Sales limited
Tooth-powder in small tins of various sizes or glass bottles	Japan, France, England, and America	Sales increasing
Tooth-paste	"	Sales greater than powder

CHILI.

British trade is holding its own in Chili, says Sir Berry Cusack-Smith, and promises to do so in the future. The figures relating to the imports of drugs, chemicals, &c., during 1900 do not, however, confirm this statement.

Indeed, they prove that we are a head second in the race, and that Germany is supreme:—

	Total Import	British Share	German Share
	Pesos *	Pesos *	Pesos *
Cod liver oil	36,033	2,290	23,411
Sulphuric acid	156,969	1,721	152,000
Turpentine	91,000	1,181	—
Red pepper	121,000	19,000	41,000
Sulphur	135,000	2,000	72,000
Borax	29,000	2,600	24,700
Capsules for bottles...	179,800	4,400	113,200
Drugs	1,971,700	329,700	1,011,600
Scented soap	63,500	16,200	22,600
Perfumery	242,400	25,600	51,000
Pepper	67,700	17,700	39,200

* 1 peso = 1s. 6d.

TURKEY.

Difficulties accompanying the introduction into the interior of Turkey of foreign pharmaceutical preparations render it desirable to call attention to the regulations regarding this class of imports, says the American Consul at Harput. In an imperial order issued some time since concerning the sanitary examination of imports into the Empire, it is stated that the entrance of pharmaceutical specialities of unknown composition, or not meeting the requirements of the French Codex, is forbidden. An exception, however, is made in the case of such specialities of these two categories as have been approved by an "official academy" (*académie officielle*)—i.e. a chartered medical society. In order to secure the entrance of an article of this nature, the importer is required to secure an authorisation from the Imperial Medical College at Constantinople. The latter requires that the demand for such authorisation should be accompanied by a certificate from the "academy," endorsing the article in question, and either a sample of the article or its formula, where there is a departure from the requirements of the French Codex. All the documents in the case should be certified by the Ottoman Consul in the country of origin. Experience thus far has shown that the great majority of the documents presented in such cases are either so vague or so improperly certified that the desired permission cannot be granted. In most cases, a lengthy correspondence has been without result. In order to avoid future delays and difficulties of this character the Turkish medical officials urge strongly that great care should be taken to secure proper Ottoman consular certification for all papers submitted in connection with such importations. Further, they call attention to the requirement that all formulas should be written either in French or in Turkish, and quantities and proportions should be stated with the utmost clearness. In general the formulas and labels should be of such a character that they can be easily understood by official examiners possessing a very limited scientific knowledge and practically no familiarity with commercial terms. It is constantly to be borne in mind that Turkish officials look with exaggerated suspicion upon anything containing poisonous or explosive constituents. The extreme difficulty of securing potash chlorate for use as a throat gargle is an example in point.

VANADIUM stimulates the gastric mucosa, increases the appetite, and thus improves the general condition of the patient. The drug has been found of especial service in cases of tuberculosis, chlorosis, neurasthenia, and occasionally in cancer of the stomach. Various combinations of vanadic acid have been tried. Strychnine vanadate—prepared by mixing sodium vanadate and strychnine sulphate—has been employed with satisfactory results in tuberculosis, neurasthenia, and atonic dyspepsia. Vanadates of caffeine and of quinine and a phospho-vanadic acid have also been prepared and used. The authors believe that they are justified in claiming an important place for vanadate of sodium among the stimulants of appetite and nutrition.—*B. M. J. Epitome.*

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C.: April 17.

THE heavy drug-auctions held to-day have certainly given a better tone to business this week, and a fair quantity of goods changed hands. Cardamoms sold at easier rates again, and deoorticated seeds were lower. Sumatra and Siam benzoin were in good demand at steady prices, and buchu-leaves sold firmly. Both Rio and Cartagena ipecacuanha were a shade easier; kino was pressed for sale, and brought lower prices. Rhubarb was quiet; sarsaparilla and senna unchanged. Zanzibar and Jamaica beeswax were dearer.

Apart from the drug-auctions, the principal change "outside" is a reduction in codeine. Quinine is quiet and easier inclined. Morphine is in fair demand. Cod-liver oil is unchanged. The following are the principal changes of the week:—

Higher	Firmer	Easier	Lower
Oil, linseed Senna pods Shellac Wax, bees'— Jamaica Zanzibar	Menthol	Ipecacuanha Paeacetin Soda nitrate	Cardamoms and decoct. seed Codeine and salts Senna (Alex.) siftings

Arrivals.

The following drugs, chemicals, &c., have arrived at the principal ports of the United Kingdom from April 3 to 9, inclusive:—Acid tartaric, 48, (@ Bari) 40; argol (@ Naples), 49; belladonna, 11 bls.; benzoin (@ Singapore), 50; camphor (@ Hamburg) 125 tubs 695 cs., (@ Kobe) 59; Calabar-beans, 6; cardamoms, 46; cascara sagrada, 1,007; castor oil (Ital.) 45, (Belg.) 122, (Fr.) 293 cks.; cinchona (@ Amsterdam) 220, (@ Ceylon) 39; citrate of lime (@ Syracuse) 22, (@ Messina) 49; coca-beans (Ceylon), 3; cochineal, 55; cod-liver oil (Nor.) 127, (from Hamburg) 50; cream of tartar (@ Marseilles) 13, (@ Barcelona) 10, (@ Bordeaux) 86; essential oils (@ Messina), 52; eucalyptus oil (Aust.), 174; gamboge (@ Singapore), 3; ginger (Jap.) 300 sks. 667 bgs., (@ W.C. Africa) 701 bgs.; guinea-grains, 12; gum tragacanth, 50; gum, unenumerated (@ Persia), 448; gum arabic (@ Aden), 69; honey (Calif.) 300 cs., (Jamaica) 138 pkgs.; ipecacuanha (@ Singapore), 9; kino (@ Cochini), 5; lime-juice (W.I.), 4 hds.; nux vomica (@ Cochini) 10, (@ Tell-cherry) 240; lime, citrate (@ Messina), 54; orange-peel (@ Marseilles), 12; opium (@ New York) 25, (@ Genoa) 10; orris (Ital.), 35; peppermint oil (@ Hamburg) 102, (@ Japan) 85; pot. chlor. (@ Sweden), 50; pot. pruss., 28; quinine (@ Amst.), 10; sandalwood (E.I.), 289; senna (Tiny.) 42, (Alex.) 51; soy (@ Hong-Kong), 150; tamarinds (E.I.) 10, (@ Barbados) 62 brls. 26½ brls.; turmeric (E.I.), 10; vanilla, 2 cs.; wine-lees (@ Barcelona) 576, (@ Palermo) 405, (@ Messina) 299.

The following drugs, chemicals, &c., have arrived at the principal ports of the United Kingdom from April 10 to 15, inclusive:—Acid, boric (Ital.), 56; acid, lactic (@ Hamburg), 10; acid, tartaric (@ Bordeaux), 7, (@ Rotterdam) 24, (@ Amsterdam) 10; aloes (@ Bombay), 150; argol (@ Naples), 51; arrowroot (St. V.), 1,353; "balsams" (@ Hamburg), 5 cs.; calumba (@ Hamburg), 79; castor oil (Belg.) 28, (Ital.) 60 cs.; caraway-seed, 170; castor oil (@ Hamburg) 3 cs., (@ Rotterdam) 25; chamomiles, 5; chloral hydrate, 2; citrate of lime (@ Messina), 21; coca-leaves (@ Ceylon), 30; cod-liver oil (@ Norway), 353; cream of tartar (@ Rotterdam) 8, (@ Bordeaux) 44; drugs

(@ Panama) 4, (@ Leghorn) 26, (@ Marseilles) 20; essential oils (@ Messina) 388, (@ New York) 51, (@ Palermo) 25; ginger (@ W.C. Africa) 2,060, (@ Jamaica) 468; gum arabic (E.I.), 99 cs.; gum olibanum, 414 cs.; honey (@ New York) 109, (Aust.) 32 cs., (@ Jamaica) 39; lemon-juice (@ Catania), 25 pps.; lime-juice (@ Jamaica) 14 cks., (@ Dominica) 29, (@ Halifax) 75; lime oil, 9; myrrh (@ Hamburg), 25; orange-peel (@ Batoum), 7; opium (@ Smyrna) 84, (@ Constantinople) 21, (@ Genoa) 50; pimento, 103; rose oil (E.I.), 18; sandalwood (E.I.), 677; sulphur (@ Catania) 728 brls. 180 cks. 2,752 bgs., (@ Girgenti) 300 tons; tamarinds (@ Antigua), 107; tartar (@ Naples) 44, (@ Messina) 18; turmeric (E.I.), 422; wax, bees' (@ New York), 46; wax, Carnauba (@ Ceara), 420; wine-lees (@ Messina), 483.

Heavy Chemicals.

The general tone of the heavy-chemical market remains without substantial change from recent reports. The volume of business passing, however, is somewhat heavier, and this applies both as regards home requirements and exports. Deliveries against existing contracts are being taken out fairly well. Values show little fluctuation.

ALKALI-PRODUCE.—Ammonia alkali in strong demand, and same shows no sign of diminishing. Caustic soda and bleaching powder are both in increased request. Soda crystals, too, are moving more freely. Saltcake, chlorates, and prussiates quiet.

MAGNESIUM-SALTS continue to move well, and are firm at unchanged figures. Magnesium chloride, 62s. 6d. to 67s. 6d. per ton; magnesium sulphate (Epsom), 62s. 6d. to 67s. 6d. per ton in bags, free on rails; carbonate of magnesia, 37s. 6d. to 40s. per cwt.

ZINC-SALTS are moving somewhat more briskly. Zinc sulphate, crystals, 6l. to 6l. 5s. per ton; zinc chloride, solution, 100° TW, 6l. to 6l. 5s. per ton.

BARIUM-PRODUCTS.—There is little new to be reported in this branch, the late firm tone steadily continuing owing to the main raw material, the mineral carbonate of barytes (Witherite) being still scarce. For the small parcel offering prices vary in accordance with strength and package. Chloride of barium, best ordinary refined crystals, in steady request, at 7l. to 7l. 10s. per ton in ordinary casks, and 6l. 15s. to 7l. 5s. per ton in bags. Blanc fixe, pure precipitated sulphate of barium in paste form, 7l. 5s. to 7l. 15s. per ton in usual casks; nitrate of baryta very firm and higher in value, with continued advancing tendency, 16l. 15s. to 18l. per ton for crystals in casks free on rails, and 17l. to 18l. 5s. per ton for powdered. Mineral sulphate of barytes moving steadily, but without change in value, 40s. to 100s. per ton for ground according to quality, package, and quantity. Hydrate of baryta, purest crystals, 14l. to 14l. 10s. per ton in usual 6-7 cwt. casks. Sulphide of barium, crude calcined, 70 to 75 per cent., 5l. 10s. to 6l. per ton in strong casks.

Liverpool Drug-market.

Liverpool, April 16.

CASTOR OIL.—The *Historian* with about 1,600 cases good seconds Calcutta has arrived, but the value remains steady at 2½d. on the quay, and 3d. per lb. in store. First-pressure French is still obtainable at 2½d. to 2½½d. per lb., but transactions are limited. 2½d. is still quoted for second pressure French, but this price would be shaded.

CALABAR BEANS.—Six bags at auction realised 1s. 2½d. per lb.

GRAINS OF PARADISE.—The sale is reported of 13 bags at 57s. 6d. per cwt. Holders on the spot are quoting 60s. for the remaining stocks.

BEESSWAX.—Further sales of Chilian mixed yellow to grey are reported at 7l. 10s. per cwt. Five blocks of Sierra Leone at auction found buyers at 6l. 16s. 3d. per cwt. in store.

GUM ARABIC.—Although the market for Soudan sorts is said to be somewhat idle the sale is reported of 40 serons hard amber descriptions at 32s. per cwt.; 45s. to 50s. is asked for fine soft.

TURPS.—The upward movement indicated last week is fully maintained, and 32s. 6d. per cwt. is asked for spot parcels.

CANARY-SEED.—Although the market is quiet there is no quotable change in the value, and good bright Turkish remains at 35s. to 35s. 6d. per quarter.

QUILLARIA BARK.—Further transactions are recorded at 12l. 7s. 6d. to 13l. per ton. The article is in a very strong position.

AFRICAN GINGER.—The recent arrivals of new crop have all been cleared and an advance has been established, 35s. 6d. per cwt. now being asked for good sound root on the spot.

SULPHATE OF COPPER is still firmly held at 19l. 5s. per ton.

German Drug-market.

Hamburg, April 15.

Our drug-market is quiet and shows very little business.

AGAR-AGAR continues firm at 315m. on the spot, and 295m. per 100 kilos. for forward.

CAMPHOR.—Refined is unchanged, refiners quoting 435m. per 100 kilos., and second-hands 5m. to 10m. per 100 kilos. less.

COCA-LEAVES are firmer, and 260m. per 100 kilos. is now asked. CONDURANGO is quieter, with sellers at 120m. per 100 kilos. ERGOT is scarce, and 335m. to 340m. per 100 kilos. asked. MENTHOL, on the spot, is scarce at 29m. per kilo., and forward 28½m.

CUMIN-SEED is firmer at 51m. per 100 kilos. KOLA is also firmer at 45m. per 100 kilos. JAPAN WAX is unchanged, and firm at 70m. per 100 kilos. SENEGA is unchanged at 510m. per 100 kilos. SUGAR-OF-MILK is quoted 80m. per 100 kilos. QUININE is firm at 43m. per kilo. WORMSEED is tending firmer; 87½m. per 100 kilos. is asked for prime green.

JABORANDI-LEAVES scarce, and little offered. CASTOR OIL shows more demand; first-pressing, in barrels, is quoted 54m., spot.

COD-LIVER OIL continues very firm, non-congealing oil of old crop being held at 105m., and new crop at 110m. per barrel.

Cablegrams.

HAMBURG, April 20:—Antimony is firmer. Condurango-bark is quiet, and for cevadilla-seed 92m. per 100 kilos. has been paid.

SMYRNA, April 17:—The sales for the week ending Wednesday evening amount to 50 cases, at from 7s. to 7s. 3d per lb. The United States has purchased the bulk.

BERGEN, April 16, 7 40 P.M.:—The market here is firm, at 105s. per barrel, f.o.b., for best Lofoten non-congealing oil. Fishing has not yet commenced at Finmarken. The catch of cod up to date amounts to 29,975,000, against 27,412,000 at the same time last year. This has yielded 15,543 barrels, against 25,903 barrels in 1901.

NEW YORK, April 17:—Market here is quiet. The following articles have an easier tendency: Opium is now quoted \$2.90 per lb., jalap 10c. per lb., peppermint oil \$1.65, citronella oil 19c., and cassia oil 63c. per lb. Cod-liver oil is higher at \$28 per barrel. Buchu-leaves are active at 20c. for round. Cape aloes is firmer at 6½c. per lb., and Cartagena ipccacuanha is lower, \$1.20 per lb. being quoted.

London Markets.

ACID, CITRIC, is unchanged at 1s. 0½d. to 1s. 0¼d. per lb.

ACID, OXALIC, is quoted 2½d. to 2¾d. per lb. net delivered.

ARROWROOT.—The West India Committee in their circular dated April 15 state that the majority of St. Vincent growers signed an agreement on February 27 last to hold all arrowroot from March 20 at 2d. per lb., as a minimum price, irrespective of quality, the agreement to remain in force until November 23. This places the market in a somewhat anomalous position, and it is feared that buyers will now pick out all the best marks at 2d. leaving "good manufacturing" root alone. If this is so it will tell hardly on some shippers later on. Fine St. Vincents in tins sold in auction at 3½d. to 3¾d. per lb., but good in barrels was bought in at 2¼d. per lb.

BORAX is quiet at the combination price of 13s. per cwt. for crystals and 14s. for powder. Boric acid is 22s. and 24s. respectively. In second hands there are sellers at quite 6d. under these prices.

CINCHONA.—At auction on Tuesday the supplies were on a larger scale than usual, the total amounting to 4,236 packages, of which more than half was sold publicly. There was a fairly good demand, especially for rich barks, and the average unit obtained was 1¾d., against 1½d. at the last Amsterdam sale. The following table shows the quantity of bark offered and sold:—

	Packages offered	Packages sold.
East Indian cinchona ...	1,805	of which 1,374
South American cinchona ...	1,271	" 1,153
(principally Calisaya)		
Java cinchona ...	884	" 108
Ceylon cinchona ...	276	" 178
	4,236	2,763

The following table shows the quantities of bark purchased by the principal buyers:—

	Lbs.
Agents for the Mannheim and Amsterdam factories ...	122,106
Agents for the Brunswick factory ...	92,789
Agents for the American factories ...	78,287
Agents for the Frankfurt and Stuttgart factories ...	71,735
Messrs. Howards & Sons ...	36,461
Agents for the Imperial factory ...	28,000
Druggists, &c. ...	39,839
Total quantity sold ...	469,217
Bought in or withdrawn ...	399,314
Total quantity offered ...	868,531

The prices obtained were as follows:—

SOUTH AMERICAN.—Bolivian cultivated Calisaya, fair to good quill, 6¼d. to 11¼d. per lb.; broken quill at 7¾d. to 8¾d.; flat at 1s. 4d. Pitaya, 2d. to 3¾d. soft Colombian, 2½d.; and Cuprea, 2d. to 2¾d. per lb.

JAVA.—Ledgeriana stem chips, 4d. to 1s. Succirubra, broken quill, 5d. to 5¾d.; branch, 3¼d. to 6¾d.; and root, 3¼d. to 5¼d. per lb.

CEYLON.—Ledgeriana, good chips, 6d. to 8d. per lb. Succirubra, stem chips and shavings, 3¼d. to 4¾d.; branch, 3¾d. to 4¾d.; and root, 3¼d. to 4d. Officinalis stem chips, 2½d. to 2¾d.; good renewed, 1½d.

EAST INDIAN.—Ledgeriana chips, 7d. to 8d.; branch, 3¼d. to 5¾d.; and root, 4¾d. to 8¾d.; red-stem chips and shavings, 3d. to 4¾d.; renewed ditto, 3½d. to 3¾d.; and root, 3d. Officinalis, good to fine chips and shavings, 5d. to 8¾d.; ordinary to fair, 2¾d. to 4¼d.; renewed ditto, 3¼d. to 8¼d.; root, 4¾d. to 8d.; and branch at 2½d. to 4¾d. per lb.

The shipments from Java for the first half of the month were 470,000 Amsterdam lbs., against 455,000 Amsterdam lbs. last year, and 275,000 in 1900. In the drug-auction 40 serons sound Huanoco quill realised 6¼d. to 6¾d. per lb., and slightly damaged 5½d. Thirty-two serons from Païta sold at 1s. Fourteen serons Loxa quill sold at from 10½d. to 1s. 2d. per lb.

CODEINE has been reduced 10d. per cz., makers now quoting 11s. 3d. for the alkaloid in quantity to 11s. 8d. for small wholesale lots. Salts have been reduced proportionately.

GALLS.—Chinese are quoted 49s. 6d. per cwt., c.i.f., for May-June shipment.

GAMBIER.—For good cubes 36s. per cwt., spot, has been paid.

MENTHOL.—According to cable advice, the market in Japan is firmer, Kobayashi brand having advanced 6d. per lb., now 13s. 3d. to 13s. 6d. per lb., c.i.f. The market here remains weak, and in auction to-day 4 cases Nippon brand sold without reserve at from 12s. 3d. to 12s. 6d. per lb.

MORPHINE is in fair demand. makers quoting 4s. per oz. for contract quantities of hydrochloride powder.

OIL, CASTOR.—Calcutta seconds are quoted 2¾d. to 3d. per lb.

OIL, CITRONELLA, is quiet at 10½d. to 10¾d. per lb. in cases.

OPIUM.—Our Constantinople correspondent writes on April 12 that there has been a little more doing during the past week, and 3 cases "druggists" and 10 cases "Malatia's" have changed hands at the parities of 7s. 6d. and 9s. 2d. per lb., respectively. The weather is quite seasonable, and crop prospects continue as bright as ever. Our Smyrna correspondent writes on April 12 that the opium market is rather quiet, the sales amounting to 22 cases for England and the Continent. The crop-prospects continue good, but it must be borne in mind that there is still a lot of risk to run before the new opium is harvested. Meantime the favourable prospects, and the preference shown to the Persian drug on the London markets, have had the effect of further reducing prices another 2d. per lb. all round on this market, and if the Americans do not respond to present figures for another week or two, it is possible that we may see lower rates. We quote to-day 7s. 2d. to 7s. 6d. for manufacturing descriptions as to quality, and for selected soft elastic paste opium, 7s. 10d. to 8s. 6d. per lb.

OIL, COD-LIVER.—The market both in Norway and London

is unaltered this week, prices ranging from 106s. to 112s. 6d per barrel, c.i.f., according to quality, and mostly subject to confirmation. Our Bergen correspondent writes on April 12 that there is no alteration in the cod-liver oil market. The Lofoten fishing is about closing, and there are no reports from Finmarken as yet. Best Lofoten non-congealing oil is now quoted 105s. per barrel, f.o.b. Bergen. The exports from Bergen amount to 2,955 barrels, against 3,060 barrels at the same time last year.

Under date of April 5, Mr. Joh. Rye Holmhoe, of Tromsøe, reports that the prices asked by first-hand producers for crude oil are considerably higher than the quotations which are daily refused by foreign buyers. It seems as if the latter do not yet realise the actual state of affairs. The catch of cod and the production of oil up to April 5 for all districts is as follows:—

	Millions (cod)	1,000 hectl. (oil)
1902	about 24.5	16
1901	22.8	26.6
1900	17.1	21.9
1899	21.2	25.2
1898	22.8	17.6
1897	37.5	25.5
1896	27.3	12

It may be of interest to note also the aggregate production of cod-liver oil during the preceding ten years in 1,000 hect. crude oil:—

1892	1893	1894	1895	1896
22.3	33.9	24.1	19.5	23.7
1897	1898	1899	1900	1901
33.8	26.4	33.6	32.8	34.3

The production up to April 5 averages 70 per cent. of the whole year's total.

In auction 111 cases Japanese oil, of rather strong flavour, partly sold at 30s. per cwt., and a further 20 cases had been sold privately.

PHENACETIN.—In regard to the paragraph inserted under this heading last week, it now appears that the Bayer Company lay claim to certain trade-mark rights in the use of the word "phenacetin," which other makers of the product (in order to avoid trouble) have agreed to recognise. It is understood that the name of "phenacetin" will only be used on packages in conjunction with the statement that it is sold with the licence of the trade-marks holders. A circular has been issued this week quoting from 4s. 2d. per lb. for 10 cwt. lots on contract, to 4s. 9d. for small wholesale quantities of crystals and powder. Bayer's make is unchanged at 7s. 6d.

QUININE has been very quiet in second-hands, with an easier tendency, there being sellers of May delivery at 1s. 2d. per oz., and August at 1s. 2½.

SODA NITRATE is easier at 10s. 3d. per cwt. for ordinary and 10s. 4½d. for refined, on the spot.

SPICES have been very quiet this week, and transactions small without much change in values. At auction on Wednesday only a few lots of Cochin *Ginger* were offered; "C" cut sold at 50s. to 50s. 6d. per cwt., but the remainder was bought in, washed rough at 40s. per cwt. Jamaica partly sold at 33s. 6d. per cwt. for dull lean. Penang *Clones* were bought in at 7d. per lb. for fair; and Zanzibar at 3¼d for dark, and 3¾d. for fair. June-August delivery is quoted 3½d. Good long red Japan *Chillies* were bought in at 33s. per cwt. Some Zanzibar were offered, but only the sea damaged portion sold. *Pimento* quiet, small dark shelly sold at 2¼d. to 3d., fair quality being bought in at 3¼d. per lb. *Mace* was bought in at 1s. 6d. per lb. for middling red Penang. *Nutmegs* were ½d. per lb. lower for West India. Broken *Cassia-lignea* was bought in at 30s. per cwt. *Pepper* quiet and unchanged; Penang block was bought in at 5½d. to 5¾d. per lb., and Singapore at 5¾d. June-August shipment is offering at 5¾d. per lb. Siam white was bought in at 9¾d., and Penang at 9½d. per lb.

SULPHONAL is very quiet, Bayer's make offering at 5s. per lb.

London Drug-auctions.

At the sales of new and old drugs to-day the following goods were offered and sold:—

	Offered	Sold		Offered	Sold
Ajowan-seed	42	0	Kamala	3	0
Albumen	34	0	Kino	46	19
Aloes—			Kola	25	20
Cape	21	0	Lemon-juice	3	0
Curaçao	43	17	Lime-juice	40	25
East Indian	7	7*	Liquorice-root	20	0
Socotrine	117	15	Loofahs	3	3
Ambergris	7	0	Menthol	12	4
Ammoniacum	4	0	Musk (pod)	5	0
Angelica	2	0	seed	3	0
Aniseed (Russ.) ..	31	11	skins	1	0
star	10	0	Myrrh	46	1
Annatto-seed	46	36	Nutmeg-paste	1	0
Antimony	103	10	Nux vomica	392	2
Areca	31	10	Oil—		
Argol (Cape)	58	31	aniseed (star) ..	10	0
Asafetida	174	6	bay	6	0
Balsam copaiba ..	27	2	cayuput	86	66
tolu	12	6	cassia	70	49
Peru	2	0	castor	145	1
Benzoin—			cedar-wood	11	0
Palembang	15	15	chaulmoogra	3	0
Siam	40	14	cinnamon	11	0
Sumatra	271	110	citronella	9	0
Buchu	33	25	clove	5	0
Calumba	239	119	cod-liver (Jap.) ..	112	30
Camphor (Jap. Ref.)	24	0	croton	1	0
Canella alba	26	0	eucalyptus	113	0
Cannabis indica ..	60	20	geranium (Bour.)	2	0
Cantharides (Chin.)	10	0	lemon	10	0
Cardamoms	627	375	lemongrass	31	0
Cascara sagrada ..	150	0	lime (W.I.)	22	7
Cascarilla	67	2	margosa	5	0
Cassia fistula	1	0	orange	1	0
Chiretta	10	0	patchouli	5	0
Cine ona	93	86	peppermint	46	31
Civet	11	0	rose (E.I.)	39	9
Coca-leaves	19	6	ylang-ylang	1	0
Cocculus indicus ..	44	0	Orange-peel	89	2
Colocyath	16	0	Orris (Flor.)	19	0
Condurango	27	0	Otto of rose	3	0
Coriander-seed	16	0	Patchouli	12	0
Cowhage	2	0	Puree	5	0
Croton-seed	49	19	Rhatany	10	0
Cubebs	98	0	Rhubarb	75	8
Cumin-seed	75	0	Saffron	3	0
Cuttle-fish bone ..	83	41	Sandalwood	33	0
Cutch	16	0	Sarsaparilla	92	92
Dandelion-root	24	0	Senna—		
Dill-seed	79	0	Alexandrian	72	8
Divi-divi	146	146	Mecca	22	22
Dragons-blood	37	5	Tinnevely	389	174
Elemi	26	1	Soy	167	97
Ergot	14	6*	Squills	44	6
Fennel-seed	7	7	Strophanthus	7	0
Galangal	64	64	Tamarinds (E.I.) ..	90	2
Galls	54	0	(W.I.)	5	5
Gamboge	12	5	Tonka-beans	5	0
Gelatin	40	0	Tragacanth	20	1
Glue	2	0	Turmeric	120	0
Guaiacum	4	0	Valerian	32	0
Gum acacia	112	5	Vermilion	1	0
Hellebore - powder	10	0	Wax (bees')—		
Honey—			Australian	1	1
Australian	45	45	Benguela	7	7
Californian	140	0	Cape	8	8
Honolulu	25	0	East Indian	76	25
Jamaica	335	194	Italian	7	0
Ipecacuanha—			Jamaica	33	14
Cartagena	42	34	Madagascar	25	0
Johore	9	0	Morocco	7	3
Rio	75	15	Spanish	25	0
Irish Moss	2	0	Zanzibar	119	95
Jaborandi	1	0	Wax (Japanese) ..	260	200

* Sold privately.

ALOES.—Socotrine sold at unchanged rates, 72s. 6d. per cwt. being paid for softish in kegs; 25 cases ditto were taken out at 75s. A parcel of 17 boxes Curaçao sold at 28s. for good pale livery, 22s. for dull and darker ditto, and 24s. for black capey. No Cape offered.

ANISEED.—Eleven bags Russian sold at 19s. 6d. per cwt. gross for net.

ANNATTO-SEED.—Two bags dull St. Vincent seed sold at 1½d.; and 12 bags Madras at 1½d. per lb.

ANTIMONY.—Japanese crude partly sold at 14l. per ton.

ARECA.—Small to bold slightly wormy seed sold at 19s. per cwt.

ARGOL.—Dusty grey Cape brought 45s. per cwt.; and powder 37s. 6d. From another catalogue 14 bags dusty grey Cape also sold at 45s. per cwt.

BALSAM COPAIBA.—For pale to cloudy Maranhão 2s. 2d. per lb. was asked. Two cases of palish opaque balsam from Hamburg sold at 1s. 6d. per lb.

BALSAM TOLU.—Good hard reddish balsam in small tins sold at 1s. 4d. per lb.

BENZON was in good demand at from 7l. to 7l. 12s. 6d. for good fair Sumatra second, 6l. 15s. for fair, and 5l. 10s. to 5l. 17s. 6d. for ordinary second. Good glassy Palembang in tins sold at 37s. 6d. Siam was also in better demand; for small to bold pale loose almonds 26l. was wanted; grain siftings in block sold at 6l. 5s., and for darkish brown block 62s. 6d. was paid. Two cases of small partly blocky almonds sold at 5l. 17s. 6d., and blocky pickings brought 4l. 10s. per cwt.

BUCHU sold at firm rates, 8d. per lb. being paid for a string of good green round leaf; and 7½d. to 7¾d. for slightly stalky and yellowish. From another catalogue 5 bales of fair, also rather stalky, sold at 8d.

CALUMBA.—Small to bold dull natural sorts sold at 7s. to 7s. 9d. per cwt., and fair brown at 10s. 6d. to 11s.

CANNABIS INDICA.—For good tops 2s. 3d. per lb. was paid, at which figure sales privately are reported. Seventeen Robbins of siftings were taken out, and from another catalogue 10 Robbins of tops had been sold privately, with 2s. 6d. asked for siftings.

CARDAMOMS were about 2d. per lb. lower, selling at the following prices:—Ceylon-Mysore: extra bold pale smooth, 3s. 1d. to 3s. 3d.; fine bold pale, 2s. 10d. to 2s. 11d.; bold medium pale, 1s. 9d. to 2s. 3d.; medium to bold pale, 1s. 8d. to 1s. 10d.; small to medium pale, 1s. 4d. to 1s. 7d.; small palish, 1s. 2d. to 1s. 5d.; brown and split, 1s. to 1s. 2d.; bold splits, 2s. 2d.; medium ditto, 1s. 8d.; small splits, 1s. 1d. to 1s. 2d.; seed, 1s. to 1s. 6d. per lb.; Ceylon-Malabar, small to medium lean brownish, 1s. 4d.

CASCARILLA.—For small and broken greenish quill 65s. was wanted; and for thin stringy 45s. was paid.

COCA LEAVES.—Fair green Ceylon sold at 9½d. to 11d.; ordinary to middling at 6½d. to 8½d.; and slightly damaged 4½d. per lb.

CROTON-SEED.—Fair, partly dark mixed sold at 25s. per cwt. Good bright were taken out without mention of price.

CUTTLEFISH-BONE.—A parcel of 41 mats from Bombay brought 2¾d. per lb.

DIVI-DIVI sold at from 7l. 17s. 6d. to 8l. 2s. 6d. per cwt.; and sea-damaged 7l. 15s.

DRAGON'S BLOOD.—Two cases of fair lump of mixed quality sold at 10l., and 3 cases of Zanzibar drop realised 37s. 6d. per cwt.

ELEMI.—Good pale Manila gum was bought in at 95s. per cwt.; and 1 case of fair, rather dirty, sold at 85s.

ERGOT.—Six bags Russian has been sold privately, and the remaining 8 bags, partly mixed with ergot of wheat, were bought in at 1s. 9d. per lb.

FENNEL-SEED.—For rather stalky Bombay seed 13s. 6d. per cwt. was paid.

GALANGAL sold "without reserve," at from 22s. to 25s. per cwt.

GAMBOGE.—For 1 case of good rough pipe, partly blocky and mostly fine orange fracture, 14l. 5s. was paid, and 7l. for dull ricey Saigon pipe. Pickings were bought in at 15l.

GUAIACUM.—Fair bright glassy block was held at 1s. 6d. per lb.

HONEY.—Jamaica was in good demand at steady prices, nice pale liquid amber in barrels selling at 18s. to 19s. per cwt., dark and mixed in cases at 16s. to 16s. 6d. Good pale

extracted honey brought 19s. 6d., and nice set white was taken out at 25s.; 45 cases Australian sold at 13s. per cwt. for yellowish semi-liquid.

IPECACUANHA.—Rio sold at slightly easier prices, from 9s. 9d. to 10s. being paid for fair to good. For a string of 9 bags cultivated Johore root, native-picked and well annulated, a bid of 9s. 6d. per lb. is to be submitted. Of Cartagena forced sales were made without reserve, 4s. to 4s. 1d. being paid for fair annulated, and 3s. 10s. for sea-damaged.

KINO was plentifully offered, and to induce business lower prices were accepted. Three cases of fair black Cocchin grain sold "without reserve, if pay charges," at from 6¾d. to 7¼d. per lb. African kino was bought in at 9d. From another catalogue 16 cases Cocchin sold, "without reserve," at from 5¾d. to 6¼d. per lb.

KOLA.—Twenty bags small West Indian sold at 1½d. per lb.

LIME-JUICE.—Twenty-five packages unworked West Indian sold at from 1s. 1d. to 1s. 2d. per gal.

MYRRH.—Fair Aden sorts were taken out at 75s. per cwt., and for a case of pale siftings 70s. was paid; 14 packages of *Bdellium*, catalogued as myrrh, brought 18s.

NUX VOMICA.—Fair Calcutta seed (390 packets) was held at 7s. 6d. per cwt.

OIL, CASSIA.—A parcel of 49 cases salvage cargo, *ex Asturia*, sold without reserve at from 2s. 2d. to 2s. 4d. per lb. for 72-per-cent. cinnamic aldehyde. The above prices were net, no draft, and taken "with all faults."

OIL, CAJUPUT.—A parcel of 63 cases sold without reserve, on account of the underwriters, at from 1s. 10d. to 2s. 1d. per bottle, net, no draft, and with all faults.

OIL, LIME.—West Indian distilled was in fair request at from 1s. 5d. to 1s. 6d. per lb., and 3s. 3d. for hand-pressed.

OIL, PEPPERMINT.—Nineteen cases Japanese dementholised oil sold without reserve at 3s. 3d. to 3s. 5d. per lb., and for 5 cases Kobayashi brand 4s. was paid. Oil, containing 40-per-cent. menthol, was held at 7s. 9d. per lb.

OIL, ROSE (EAST INDIAN).—For "settling" in bottles 2d. per oz. was paid.

RHUBARB.—Slow of sale in auction, although there is a fair business privately. The following were the sales:—Six cases of small to bold flat High-dried, with pale pinky fracture, 8¾d. to 10d. per lb. One case of medium to bold round Canton, with three-quarter pinky fracture and one-quarter grey and dark, 1s. 10d.; and one case of medium to bold orange-coated flat Shensi, with fine pinky fracture, 3s. 7d. per lb. For small to bold round native high-dried, with about three-quarter pinky and grey fracture, 5¼d. was the limit, a bid of 5d. being refused.

SARSAPARILLA.—Grey Jamaica sold at 1s. 2d. to 1s. 4d., according to quality, 31 bales Lima sold at 11½d. to 1s. 1d., and a further 10 bales at 1s. 2d. for good, and red native Jamaica at 8d. per lb., subject.

SENNA.—The bulk of Tinnevely leaf offered was again low, from ¾d. to 1d. per lb. being paid for it. Pods were dearer, from 1¾d. to 2¼d. being paid. Fair Alexandrian leaf was held at 5½d. per lb.; pods (3 bales) sold at 7d.; and siftings at 2d. per lb. Twenty-two bales stalky Mecca leaf sold at ¾d. per lb. without reserve.

SOY.—Ninety-seven packages soy containing stone jars of various sizes sold in bond at from 1s. 9d. to 2s. 1d. per case, and 7 barrels sold at 1s. 2d. per gal., all "without reserve" for account of the underwriters.

WAX, BEES.—Good Jamaica sold at 7l. 17s. 6d. to 8l. 2s. 6d. Zanzibar was dearer, and everything was sold at from 6l. 15s. to 7l. 5s. per cwt. Twenty-five cases East Indian sold at 6l. 10s., and 7 cases Benguela at 6l. 15s. per cwt. Three bags Morocco sold at 6l. 12s. 6d., and 1 bag Australian at 7l. 10s. per cwt.

WAX, JAPANESE.—Two hundred cases sold "without reserve" on underwriter's account at from 25s. to 27s. per cwt. without draft discount and with all faults. For sound wax 35s. is the spot price. Twenty cases dullish square sold at 34s. 6d. per cwt. subject.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

English Assistants in Paris.

SIR,—Referring to the letters of "Quite Enough" and "Senior" in the *C. & D.* for March 29 and April 5, I should like to give the result of my own experience of pharmacy in Paris. I have lived here a good many years, and attained to such a position that my permanent residence in this capital is likely. This is probably due as much to a favourable opportunity as to any special capacity on my part, as my conviction is that, other conditions being equal, an Englishman is better off in his own country than abroad for permanent residence—I mean for the men who have to earn their living. In Paris the arrangements and sleeping accommodation in the smaller pharmacies often leave much to be desired, and the different mode of living is frequently distasteful to the new arrival. But I should like to lay some stress on the value and importance, in my opinion, for all young men—be they pharmacists or mere laymen—of spending at least a year abroad if they possibly can. Such an experience, which enables them to study foreign methods and ways, cannot fail to be of value to an intelligent man of an observant turn of mind. I know that good English assistants are not easily obtained for Paris, consequently the better firms here are disposed to pay fairly high salaries, this question being, after all, one of supply and demand. I understand that men go more readily as assistants for the season to the South of France or to Italy, partly because they engage themselves for a few months only out of England, and partly because tempted by the climatic conditions. But as an Englishman in Paris who would from many points of view prefer to reside on the other side of the Channel, I should be much interested to know to what extent chemists in England who have had foreign experience consider the time passed abroad as well spent.

Paris, April 9. A TALE OF TWO CITIES. (116/5.)

Volunteer Compounders.

SIR,—“Pharmaceutical Chemist,” in your issue of March 29, has taken such a different standpoint from mine that it is not probable our views will coincide. He begins by saying that if I had acted on his advice I would not have been treated as I was. Might I say that I did not, unfortunately, have the pleasure of reading the former letter to which he refers? It is obvious now that we were wrong in giving our services to the War Office without first being assured that our profession would be properly recognised; but “Pharmaceutical Chemist’s” solution of the problem does not seem feasible. The idea of one man, or any number of men, writing to the War Office asking for particular ranks is ridiculous, and one can imagine the look of amazement on the face of the official who has the duty of attending to such correspondence. The War Office requires to be approached officially to have any degree of success, but there does not seem to exist any suitable organisation among us, and our interests suffer accordingly. The fact of one man more or less refusing to volunteer because his particular request was not granted will not affect the final issue to any extent. Civilian help will probably be required even after hostilities cease, and our duty is to see whether something cannot be done so that, as chemists, we shall be recognised by the War Office when our professional services are required.

Yours faithfully,

LATE COMPOUNDER R.A.M.C. (91/41)

The Bradford Trouble.

SIR,—To cast oil on the troubled waters of the Bradford Association was the good intention of Mr. Waddington when

he quoted from a private letter of mine which, to put it mildly, I had not expected to see mentioned in cold print. As the liberty was taken with an excellent motive, I should have allowed it to pass, but for your editorial interpolation in the report of the Bradford meeting. I have no recollection of using the word “garbled,” but in writing a hurried letter which I supposed was strictly *entre nous* it is possible for an unhappy expression to crop up. I have always found the trade papers very fair and considerate, and for my own part I am greatly obliged to them; but in this case I feared the necessary condensation had weakened the emphasis I placed on my allusion to Mr. Waddington’s letter, not as a personal matter, but as an example of a type. In my anxiety to consider the feelings of a respected friend I have been made to appear as if I had a personal complaint against the Press, which is not the case. Viewed in the light of the report of the Dewsbury meeting on March 10, the frothy ebullition of pathetic indignation on the part of some members of the Bradford Association seems quite inconsequential. On the Federation scheme I expressed the opinion that the attitude of the Bradford Association and the advocacy of one of its members were an example of glaring inconsistency. To my mind it still seems so, and I might just as well be annoyed with the Bradford members because their opinion differs from mine. The only other remark I made about Bradford was that I regarded it as a progressive association. This is serious, and I cannot imagine what I was thinking about to make such a statement. Should I have said that I regarded Bradford as an unprogressive association? These were the only remarks I made directly affecting Bradford. I am not responsible for what others said, neither is it my fault if Bradford assimilated the strictures applied elsewhere. It would be a disciplinary mental exercise to reverse the positions of Bradford and Dewsbury in relation to the proposed West Riding Federation. That the attitude of Bradford was erroneous is a matter of opinion, but the charge of loss of temper is amusing as a bad guess. I have no feeling of resentment, and never had, because I have always been convinced that there was something in the background. It was a very nice dinner. But Bradford has simply mistaken the piddle of post-prandial persiflage for the pathos of a Dewsbury axe to grind.

Batley, April 15.

R. BROADHEAD.

Assistants in South Africa.

SIR,—Correspondence on this subject must of necessity spread itself over a great length of time, owing to the distance between Cannon Street and South Africa, and letters crop up in the *C. & D.* columns at intervals of two to three months or so. In the issue just to hand, December 28, 1901, I read the letter sent by “Satisfied.” Heaven be praised, there is one assistant in this land of dust and khaki in that happy state! Truly his lines are cast in pleasant places, and methinks King William’s Town must be the blissful spot from which he writes. That he is not long out from home is very apparent—his salary proclaims that at once; and when he has learned a little more of what experience teaches in matters South African, he will realise that King William’s Town is not South Africa, and the whole has many varied parts. The letters of “Ulysses” and “Ixia” (*C. & D.*, September 14), are more to the point. They evidently have not found life such a bed of roses as “Satisfied,” and what they say is a true statement of facts as they find them. The “cut-throat contract-prices for dispensing” referred to by “Ixia” are no fiction, as “Satisfied” seems to think, but prevail in most colonial towns of any size in which there are public institutions, hospitals, benefit societies, &c. Prices for ordinary dispensing vary very much in different parts of S. Africa, but on the whole are good and pay well. This is a country for “profitable extras,” and side-lines pay even better than the legitimate druggist’s stock. The assistant from a West-end up-to-date pharmacy can find no fault with the few drug-stores in Adderley Street when he lands in Cape Town, for plate-glass, polished floors, and flashing gold-labelled bottles *à la mode* are greatly in evidence. It is when he travels up country that his ideals get a bit shaken, but it is too late to turn back, and after a while he is quite used to things as they are and an occasional grumble relieves him. With regard to the “agreement” system, “Ixia” is quite right in stating that the signing of such at home is not

binding out here. Anomalous as it may appear (and even the Editor questioned it) it is nevertheless a fact, and cases have occurred where several assistants to my knowledge have broken it either for better or for worse; but it is really a question of honour and not of law, and individual cases must be judged on their own merits. The idea, I take it, in writing these letters to the *C. & D.* is to warn fellow-assistants at home from venturing to this country without due consideration of its pros and cons. That there is a great future before South Africa there is no doubt, and chemists of course come in with the rest and take their chances. Qualified men can always get good berths, and the present scarcity of assistants is as great as in England. Salary, the all-important item, is a variable quantity. What is wealth to "Satisfied" in the Eastern Province is hand-to-mouth for those farther West and North, the scale rising from East to West and Northwards. Reference to a map will be q.s. to the intending emigrant, but if he knows as much about bricklaying as he does about dispensing let him choose the former, for it will pay him better, such is the market value of our "professional" services; 15*l.* per month with room is an average amount, and when colonial experience has been gained 20*l.* to 30*l.* is given where the man is worth it. From a scenic point of view the coastal assistant scores, and there is usually more "life" to be had at the ports, but we cannot all stay where we land and somebody must do the trekking. To sum up the letters which have been written so far, the experiences given tend rather to deter than to encourage the home man to come out. Very few who do come regret the venture, notwithstanding "life's little worries," and just now there are many vacancies ready to be filled. We do not expect to be assistants all our lives, and the aspect of things will appear changed from the point of view of a boss. Meanwhile the earth revolves in its axis at the same old rate, and the *C. & D.* coming to hand each week helps us to keep up with it. GRIQUA. (152/57.)

From the Southern Seas.

A *Pharmacist*, whose business is in one of the Pacific Islands not far from the Equator, writes under date December 16, 1901:—"I read nearly every word of the *C. & D.* as the numbers arrive, and am quite *au courant* with such burning questions as 'The Improper Motion,' the 'Scarcity of Apprentices,' and so on. I wonder whether Mr. Glyn-Jones, Mr. James Reid, Mr. James Paterson, and other of your politicians know how eagerly their doings are watched and their writings read in this, and no doubt in other remote and lonely spots on our astonishing planet. Some of us exiles, I expect, take more interest in what your pages have to reveal of the happenings among the craft in the dear homeland than do many of the readers who are actually in the very midst of the turmoil. No less pleasing is the apparently unshakeable serenity and dignity of the editorial attitude even when opportunity seems to serve for acrimonious and 'smart' writing."

The Budget.

Mr. Vincent Wood, Victoria House, 4 Albion Place, Blackfriars Bridge, S.E., writes regretting that in the interests of the British manufacturers the Chancellor of the Exchequer has not suggested a small tax on manufactured goods brought into this country from abroad. Mr. Wood hopes that chemists and druggists will bring pressure to bear on candidates at the next general election, and in the meantime only buy British-made goods.

Legal Queries.

Before sending in a query for reply in this section see if the subject is not dealt with in "The Chemists' and Druggists Diary"—Trade Law or Pharmacy Law Sections.

194/56. *Simplex*.—See THE CHEMISTS' AND DRUGGISTS DIARY, page 285, for all particulars regarding the registration of a trade-mark.

194/50. *Veloderm*.—You are wrong. Refer to the lists of poisons in THE CHEMISTS' AND DRUGGISTS' DIARY, page 269 and page 270.

194/63. *Medcal*.—Refer to THE CHEMISTS' AND DRUGGISTS' DIARY, page 288. It is exceedingly unwise to apply for patents for medicinal compounds.

125/11. *S.M.*—The DIARY puts the present law correctly, but in your quotation of the companies paragraph you use "never" for "must," which quite alters the sense.

194/63. *Medical*.—If you compare your labels with those you mention, you will find the difference. Toilet-preparations only pay duty if recommended for curing ailments.

193/20. *Alpha*.—You are labouring under the impression that "Vaseline" was removed from the trade-marks register before the appeal case. That was not so. It is the property of the Chesebrough Company, and can only be used to designate petroleum-jelly sold by them. Up to the present we have heard of no appeal to the House of Lords. Probably the firm who wish you to take their own manufacture under the name of "Vaseline," and who are prepared to take the full responsibility (which should be in proper legal form), can also give you information on the point. In any case you will be the scapegoat until the Court of Appeal decision has been reversed.

193/49. *Plate Glass*.—We cannot add to the information given in reply to "Windows," *C. & D.*, March 23, page 476.

197/20. *J. N.*—The premises in which your girls are employed in packing 1*l.* lines are a workshop within the meaning of the Factory and Workshop Act, 1901. Write to the inspector for your district stating (1) the name of the workshop; (2) where situate; (3) address for service of letters; (4) nature of work; (5) nature and amount of power, if any; and (6) name of the person or firm carrying on the workshop. This must be done within one month after the premises are first used by the girls as a workshop. Penalty for contravention, 5*l.*

198/42. *W. F. G.*—Dentists who were in practice before the passing of the Dentists Act cannot now be registered. You may practise dentistry, and will not be interfered with so long as you do not call yourself a dentist.

203/16. *Rud. Rhei*.—Your essence of Jamaica ginger and liquid extract of cascara labels involve liability. Submit 3 and 4 to Somerset House. They are on the border-line.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

198/53. *Elepert*.—For the present condition of the Australian Commonwealth tariff see the last issue of the *Chemist and Druggist of Australasia*. The tariff is in force subject to alterations.

188/59. *M. O. S.*—(1) We think the word will be registrable. Venture 5*s.* upon it by doing as directed in our DIARY under "Trade-marks Registration." (2) "Magnetic" being a descriptive word is not registrable. (3) Sulphate of copper is not a hair-dye of any power. You may try the B.P. solution, say, on sheep's wool, and dilute to the tint you require.

196/38. *C. H. C. F.*—There is as yet no prohibition under the Sale of Food and Drugs Act as to the use of aniline colours in food.

183/34. *C. J. E.*—(1) Influenza and Cold Mixture:—

Potass. citrat.	...	...	...	3 <i>ss.</i>
Liq. amm. acct.	...	...	...	3 <i>ss.</i>
Tr. aconiti	...	...	...	℥xxiv.
Spt. ether. nit.	...	...	...	℥ij.
Vin. ipecac.	...	...	...	℥j.
Aq. camphor. ad	...	...	...	℥vj.

3*ss.* omni sec. vel tertia hora ex aqua.

(2) The formula for Pulv. Antim. Co. is in the B.P. under the name pulvis antimonialis. The latter was the name under which the powder was introduced in the P.L. 1788, but in the P.L. 1836 and 1851 it was called pulv. antim. co., but again

changed to pulvis antimonialis in the B.P. 1864. (3) The semi-fluid Boot-creams have a basis of gelatin (8 oz.), Iceland moss (1 oz.), water ($\frac{1}{2}$ gal.). This is coloured black or brown as desired with aniline dyes.

193/68. *H. F. & Co.*—In the official classification of goods for which a Trade-mark can be registered "goods manufactured from indiarubber and guttapercha not included in other classes" appear in Class 40.

Information Wanted.

Postcard replies to any of the subjoined inquiries will be esteemed.

200/41 Where can McGill's orange-blossom be obtained?

204/19. Makers of marking-ink in bulk for supplying to laundries.

203/60. Makers of lead syphons for drawing off sulphuric acid from carboys.

Coming Events.

Notices of forthcoming meetings are inserted in this section free of charge. Secretaries should send such notices to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C., so that they may be received not later than Wednesday of the week of publication; if later, by telegram to "Chemicus London."

Tuesday, April 22.

Bradford Chemists' Association. Annual dinner

Wednesday, April 23.

Cardiff Pharmaceutical Association, Park Hotel, Cardiff, at 8 p.m. Smoking concert.

Pharmaceutical Society of Great Britain (North British Branch). Evening meeting at 36 York Place, Edinburgh, at 8.30. Proceedings: "The Turpentine-test for Glacial Acetic Acid," by Thomas Dunlop; "The Titration of Boric Acid and Borax," by Thomas S. Barrie; "Some Methods of Dispensing," by William S. Glass; additions to library and museum. *Society of Arts,* John Street, Adelphi, W.C., at 8 p.m. "Opto-Technics," by Professor Silvanus P. Thompson.

Thursday, April 24.

Chemists' Assistants' Association, 73 Newman Street, Oxford Street, W., at 9 p.m. Mr. C. Hymans on "Glass." *Midland Pharmaceutical Association,* Birmingham. Annual meeting and dinner. *Optical Society,* 7 Crane Court, Fleet Street, E.C., at 8 p.m. Presidential address by Mr. C. Hyatt-Woolf.

Friday, April 25.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, W., at 9 p.m. Mr. J. Mackenzie Davidson on "X-rays and Localisation."

The Autobiography of a Mineral-water Bottle.

[At the dinner of the Mineral-water Bottle Exchange and Trade protection Society (Limited), on April 3, the President, Mr. Mark Beaufoy, said he hoped the time would come when some one would write the autobiography of a mineral-water bottle.]

THE gentle Spring had donned its verdure green,
The bursting crocuses with gaudy sheen
Had fringed earth's mantle with a yellow glare,
And bird-like songs of gladness filled the air.
The sturdy glass-blower carolled to the sun
As home he hied him when his work was done,
For on that day, some years ago—p'raps three—
In making bottles he had fashioned—me.
The furnace fire which warmed me into life
With British fuel glowed, and ne'er a life
Or flute or piccolo was daintier blown
Than I, a Britisher by blood and bone.

Not Teuton craft, nor handwork of the Gaul,
Nor deft Bohemian could me subject call;
Erect I stood, symmetrical and strong,
A Barnsley bottle, simple I, and young;
A proud "ball-stopper," not a plebeian "cork,"
Evolved with skill amid the wilds of York.
Full soon my way into the world I fought,
Pursued by Idris and by Camwal sought,
Till, coyly hid and feeling sad and lone,
The lynx-eyed Beaufoy marked me for his own,
With liquid fed me, till I nearly burst
With effervescence destined for the thirst
Of belted Earl whose parching throat did flee
For comfort to the soothing S. and B.

But soon it happened; 'neath the sainted roof
Of him who ministers the grave reproof
To bold Unorthodoxy (and who cheers
The hearts of worshippers, who many years
Have heard the same old sermon) next I find
Myself established, and reception kind
Awaited me, until such time as he
Who thirsted most from dry theology
Bethought him how his dryness might assuage
And gain new strength the wordy war to wage:
"Verily, good Thomas, I do much desire
Slight larynx liquidation, for a fire
Seems burning fiercely in my tender throat,
So bring me that which quenches, for I'd quote
A few more lines my good friend to confound."
The servitor from cellar underground
Bore me, betimes, with lip on the up-curl
To soothe the Bishop as I'd soothed the Earl.

The peaceful silence of th' ecclesiast's home
Anon is left, for 'tis my fate to roam,
And back once more my emptiness to fill
A man, with wire-cased head, against my will
Begripes my inwards with strong ginger-ale.
I gasp! I burn! but live to tell the tale
Of my vicissitudes. Sad the descent
From homes ancestral, wealth and beauty blent
In those who first did fondle me. The balm
Of dainty white and dimpled rotund palm
Of parched but pondrous bishop did subside
Th' ebullient passions of my inward pride.
But now, alas! my joy is dashed awhile,
For in a cheerless dismal domicile,
Where one of Erin's sons with spouse and spawn
Herd all together from the dark till dawn,
Do I adorn the grimy mantelshelf,
And watch the navy fling his hard-earned pelf
To eager helpmate; damming verbal gust
What time adown his throat I wash the dust.

At length we reach the final scene of all;
For, once beheaded and bereft of ball,
By sportive scions of Hibernian brood,
Cast forth, discarded, with much language rude,
I play the target for a tattered band
In vulgar backyard. Henceforth every hand
Is raised against me, and the half-bricks fly
Till prone in pieces agonised I lie.
Then form maternal swooping frights the crew,
Which scatters swiftly and is lost to view;
While she with ancient broom mops my remains
Into th' adjacent dustbin 'spite my pains.
With other refuse soon I find myself
On open dust-heap, mixed with broken delf,
And crystal vases humbled in their pride
(Whom men once treasured, though they now deride
Our shattered greatness). Then away we're borne
The garden walls of villas to adorn
In stiff Suburbia. Thus our remnants feed
The passionless utilitarian's need.
Our pointed presence warns the area thief
Who'd steal the pudding or remove the beef;
While bold burglarious persons full of wants
Leave off with us a portion of their pants.
And here I rest, and here I will remain,
Until re-incarnation comes again.